

THE

Desert

M A G A Z I N E



OCTOBER, 1941

25 CENTS

Desert Folks are Friendly . . .

Bremerton, Washington

Gentlemen:

"The Desert" is as refreshing as a desert breeze. I feel I am entering vacationland every time I lift the cover.

In April, my husband and I drove east to Detroit, then south to Florida and returned by way of Texas, New Mexico, Arizona, Utah, etc. We found a copy of Desert to be an open passport through the country, and we met the friendliest people in the world at Tucumcari and Winslow.

As we drove from Albuquerque to Winslow I read Betty Woods' article "Malpais Frontier" (April issue) and felt we were receiving guide service.

I believe your policy of "no objectionable advertising" contributes greatly to your success.

DOROTHY NELSON

Lesson in Navajo . . .

Boulder City, Nevada

Dear Sir:

In the August, 1941, issue of the Desert Magazine, there is a most interesting article, "Arch in the Redrocks" by Richard Van Valkenburgh. This article, telling of his trip to the isolated, little traveled region where the "Tsé gahwoots'onih" or Perforated Rock is found, ends on page 27 of that issue. On the same page is the description by Jimmie Ellison of Window Rock, Arizona, which was the subject for the June Landmark contest. Miss Ellison calls the "Hole-in-the-Rock" by the same name, both English and Indian, as the arch discovered by Mr. Valkenburgh.

My purpose in writing this letter is to ask you to straighten out the contradiction of these two articles. It has aroused my curiosity as to which of the two formations is really the "Tsé gahwoots'onih," and which of the authors is correct. If you would do me the great favor of comparing these stories and letting me know the answer to my query either by letter or by a notice in the next issue of the Magazine, I would appreciate it very much.

BETTE MORITZ

Miss Moritz: That is a very proper question. The answer is that tsé gahwoots'onih in the Navajo language is a common noun, not a place name, and applies to any hole-in-the-rock formation of the same general type as Window rock or Redrock arch or Rainbow bridge.

—R.H.

Fig Tree John's Uniform . . .

Coachella, California

Desert Magazine:

In an article about Fig Tree John by Nina Paul Shumway and Leland Yost in your January, 1941, issue it was stated that they did not know where he obtained the army uniform the old fellow loved to wear, and which gave him such a picturesque appearance.

The story told me by Tom and Tim McCoy, who drove stage from Yuma to San Bernardino in the old days, is this:

Once in the late '80s Gen. Miles had his military headquarters in Los Angeles. Some of his men, returning from Yuma, lost their way and after much hardship reached Fig Tree's spring near present Fish springs. They were famished for water and might have suffered if the old Indian had not allowed them to drink their fill. He kept them there overnight and sent them on their way. He expressed great admiration for their blue uniforms.

Later when new uniforms were issued, the captain of the detail, who had taken a liking to old John, sent his discarded uniform to Fig Tree by messenger. The stovepipe hat was not part of the uniform, but was correct evening dress for that period, and was sent along instead of the regulation cap more or less as a joke.

JUNE A. W. MCCARROLL

LETTERS

Rattlers Wanted . . .

Randsburg, California

Dear Sir:

We read your magazine every month and enjoy it very much. Now I am looking for some information. Could you tell me of any one down your way who has live rattlesnakes for sale? I catch lots of them up here but not the real large ones. I will appreciate any information.

MRS. A. P. SNOOK

Camino del Diablo . . .

San Luis, Sonora, Mexico

Editor, Desert Magazine:

American newspaper reporters do not appear to have a very clear understanding about the historical old highway Camino del Diablo.

Early in August seven Mexicans died of thirst on the northern Sonora desert enroute from Sonoyta to San Luis. All the newspapers carried front page stories saying the tragedy occurred on Camino del Diablo. This is incorrect. El Camino del Diablo is the old route followed by the Mexican gold-seekers from 1849 through the California and Arizona gold rush days. From Sonoyta the old trail is on the American side of the boundary by way of Tule well and Tinajas Altas to Yuma.

The road on which the Mexicans met death this summer is a military road built by Gen. Abelardo Rodriguez at the time of the last Mexican revolution. Gen. Rodriguez, who was then governor of the Northern District of Baja California, remained loyal to the central government, and built a road from San Luis east toward Nogales so he could send a military expedition against the rebels in northern Sonora. This road, of course, is entirely on the Mexican side of the line. It roughly parallels the Camino del Diablo, but is many miles south of it between San Luis and Sonoyta.

For the sake of accurate history, I just wanted to put your American reporters right in this matter.

ALFRED MIRANDO

Close to Nature . . .

San Jose, California

Gentlemen:

After reading a letter on the back of front cover of the August issue of the Desert Magazine it seemed necessary to add a word or two to that subscriber's letter from Utah. As he states, "The articles by Marshal South are worth the price, etc." To simply add my whole hearted approval to that statement does not seem adequate to express my appreciation of those articles by Mr. South and it is more than likely that there are more readers like myself who have put off writing a word in that respect.

The first thing that happens when I open the D. M. is a search for Mr. South's article and should there ever come a time when he is unable to write an article please have him simply state "why not." Such would amply reward those who fully appreciate his messages, which he translates from the Great Spirit, in words that are understandable, to hungry souls who are unable to comprehend the blessings of Nature.

In our mad scramble for material gain we are missing the wealth of beauty so aptly pictured by Mr. South. It is people like him, with their spark of love, received from living in close harmony with the Great Spirit, who enable us to see, through their eyes, in their word pictures, what we long to be able to see.

Wm. C. CHANDLER

Enterprise that Flopped . . .

Palmdale, California

Memo to Mr. Henderson:

Everyone who writes about Joshua trees gives a different version of the notorious attempt to convert them into paper pulp, an enterprise of several years ago that was reported to have been backed by English capital, but providentially flopped.

One story is that the state cracked down with a protective law before the exploiters got their start. Another is that they built a mill and sent a shipload of pulp to England for processing, but it soured on the way and had to be thrown overboard. A third is that having built the mill they found they had no water.

Maybe you have the facts. If not, there must be some readers of Desert Magazine who have first-hand information. It seems to me it would be worthwhile to get the truth and print and settle the question.

CARLYLE ELLIS

Desert Magazine will welcome any information in answer to Mr. Ellis' question.

Mystery of the Maze . . .

Kansas City, Missouri

Dear Sir:

Am just indulging in my yearly literary effort, that of writing to the editor. That is one of the things a year's subscription to a magazine entitles one, so to prevent it from expiring, will try to write a properly worded letter.

Having missed the first years numbers, I do not know if you ever printed an article about the so-called Indian Maze south of Needles on U. S. 66 or not.

But having visited that curious place two times and analyzed it, as it were, I have come to the conclusion that it is not an Indian maze at all. That is it may have been made by Indians but it wasn't intended to be a maze. Some one who couldn't solve the thing called it that and the rest of the public took it for granted. But if you ever print anything about it, and I believe a well illustrated article would be interesting, go up there and look it over with this explanation in your mind and see if I didn't come near the solution of the curiosity.

Several small hill tops are covered with furrows, shallow, and ridges, not very high. These shallow furrows run in parallel rows and do not attempt to form anything like a maze, but just run across the hilltops in parallel lines. They change direction according to the topography of the ground, and I think an aerial view would look like farms plowed in different directions. Even the little ravines are scored like the hilltops. This couldn't have been an ancient Indian corn patch because even barrel cactus seem to have a time living on the waterless, sun-baked place.

Here is what I think caused this maze. Indians, or some one, found gem stones, maybe turquoise, on these hills and raked the surface into rows of gravel searching for stones, or maybe someone found gold in nuggets, and they raked the surface of the ground to find more. The gravel raked up is nearly all covered with that sun varnish you told about not long ago, and not being a rock-hound and knowing all about various minerals, I believe it would pay some rockhound to visit the place and they might find something good.

Thank you for your patience Mr. Henderson in reading this, and I promise to not bother you this year, unless I think of something interesting.

FREDERIC C. BUTLER

Dear F.C.B.: I've read and listened to a hundred theories regarding the mysterious maze, and haven't met one yet that seemed entirely plausible. I hope that at some future date Desert Magazine will be able to present the right answer. Thanks for your suggestion.

—R.H.

DESERT Calendar

- OCT. 4 Ceremonial dance at Nambe Indian Pueblo, New Mexico.
- 5 Deer season opens in Nevada. Continues through Oct. 20 in Humboldt county, through Nov. 3 in Nye county.
- 9-11 Annual convention of Utah State Conference of Social Workers, Newhouse hotel, Salt Lake City. Wm. H. Callahan, Provo, chairman.
- 10-11 New Mexico and Mountain States Hotelmen's convention, Albuquerque, N. M. J. B. Herndon, Albuquerque Hilton hotel, N. M. president.
- 10-11 Arizona chapter, National Ass'n. of Postmasters, meets in Prescott.
- 10-11 State conference of Daughters of the American Revolution at Silver City, New Mexico.
- 11-12 Horse race meet, Las Vegas, Nevada. E. Cragin, El Portal Bldg., chairman.
- 11-12 Second annual Mojave Desert Gem and Mineral show, Beacon Tavern, Barstow, California.
- 12-13 Mountain States association, comprised of chamber of commerce officials from 7 S.W. states, meets in Albuquerque. Roy H. Smith, Tucumcari, state president.
- 12-26 Valley quail season for Nevada. Dates may vary in counties, most of them allowing only a few days. Bag limit, 10.
- 15-17 National Reclamation association convention, Phoenix, Arizona.
- 16-NOV. 15 Arizona deer season north of Gila river except where U. S. 70 crosses river at Coolidge dam it will follow the highway to Superior and return to the river over the Superior-Kelvin road.
- 17-18 Apache county fair, St. Johns, Arizona.
- 18-19 Las Vegas, Nevada, horse race meet.
- 18-19 Fifth annual Gold Rush, Mojave, California. Rodeo, parades, Round-up dance, free barbecue. Sponsored by Exchange club, William Vail, chairman.
- 22-25 New Mexico Educational association convention, Albuquerque.
- 23-26 Days of '49 celebration at Coolidge, Arizona. Rodeo, carnival, dances. American Legion sponsors.
- 24-26 Annual Salton Sea boat races, inboard and outboard motors. C. A. Washburn, Indio, chairman.
- 25-26 Sierra Club treks to Desert Center, California, for weekend of hiking and campfire tales. "Desert Steve" Ragsdale, leader.
- 31 Nevada's 77th Admission day celebration, Carson City. Features Nevada Indians, historical "Pageant of the Past." Bernard C. Hartung, chairman.
- 31-NOV. 6 Ogden Livestock show, Union stockyards, Ogden, Utah.



Volume 4

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Cathedral Gorge

By ALBERTA G. MACHEN
Reno, Nevada

First prize winner in Desert Magazine's August photographic contest is this photo of a gorge near Panaca, Nevada, named in 1894 for the spire and tower formations rising from the depths of the gorge, the tops of which are just visible at lower right. Taken with a Kodak 620 Jr., Series III. Lens—Kodak Anastigmat f6.3, lens stop f32; 1/50 sec. Eastman Super XX film, Eastman color filter.

Desert Palms

By G. E. KIRKPATRICK
San Diego, California

Winner of the second prize in the regular monthly contest is this photo of a group of palms at Thousand Palms Oasis in Coachella valley. Camera was a 3½x4¼ Graflex. Aropan film, K 2 filter, at f16, 1/100 sec. Time about 6:30 a. m.

Special Merit

The following photos were judged to have special merit:

"Desert Silhouette," by F. Clifford Hanchette, Monrovia, California.

"Nolina Blossoms," by Doris C. Priestley, Pomona, California.

"Night Falls on the Mojave," by Ricky Tanzi, Los Angeles, California.





Tom Schofield neither denies nor affirms that his famous old mine has been rediscovered. "There are minerals enough here for everybody," he remarks.

Lost Dutch Oven Mine --has it been found?

By REXFORD BELLAMY

FOR nearly half a century the search for the Lost Dutch Oven mine in the Mojave desert has not ceased. Searchers have come from many points in the United States, foreign countries too, scores of them every year.

The lure is kept fresh by a continually repeated story of unmeasured riches, an iron Dutch oven filled with "virgin gold," an old abandoned mine—discovered—then lost again.

Each time the story of Thomas Schofield's discovery of the Lost Dutch Oven

appears in print a new influx of lost-mine-searchers streams into the auto camps at Danby, Chambless, Amboy, Essex and other towns along Highway 66 in California. No doubt some of them are out there now. The writer recently talked to one who said he had been looking for the old mine for nearly three months.

Is there any truth in this alluring tale? Was any such mine ever discovered?

"No," many weary discouraged searchers will mutter to themselves. "No, it's a fake. And a cruel one at that."

But others tell a different story.

Was the legendary Lost Dutch Oven mine of the Mojave desert in the Clipper mountains or the Old Woman mountains? Tom Schofield, who first told the story of finding the rich gold, reported it was in the Clippers. But he never went back to it—and now a new generation of mining men have relocated a valuable deposit which answers the description of the old Dutch Oven—except that it is in the Old Woman range 20 miles to the south. Tom Schofield probably knows the answer, but he won't tell. You can read this story and draw your own conclusions.

"The old mine has been found, and is now being worked." This is the calm assurance given by Clifford Gillespie who holds the lease on the claims. He does not make the statement boastfully. He admits frankly that when he leased the property he had not even read the story of the lost Dutch Oven.

Gillespie is a mining man—not a prospector. He first became interested in the mine one day when he stopped at Danby, California, as he was returning to Los Angeles from claims near Needles.

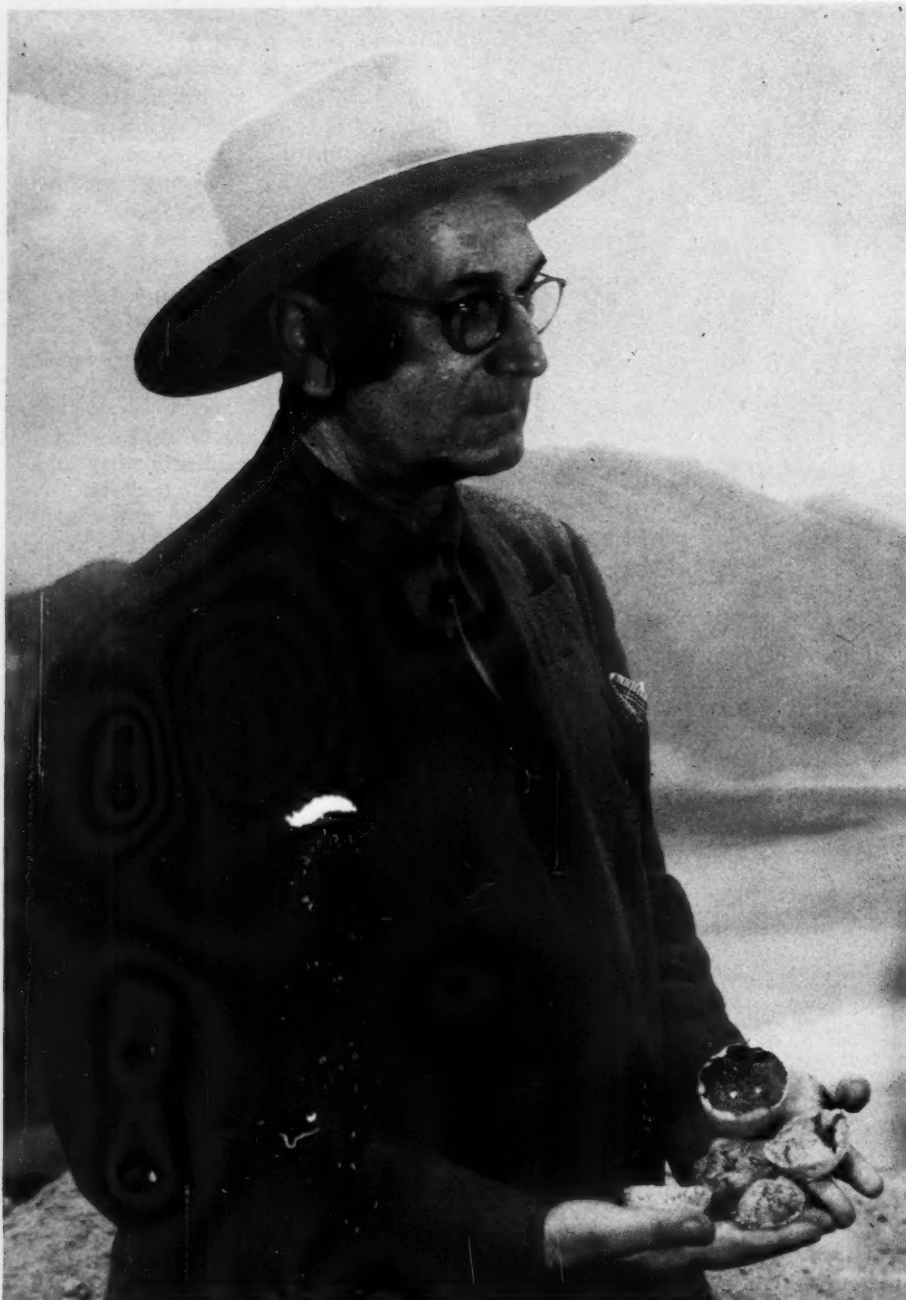
That day at Danby a mining man told Gillespie about a prospector who had recently taken out high grade gold ore from his claim near by. Gillespie went out to investigate and found the prospector had located a rich vein. He made extended exploration. This and surveys made for him by Los Angeles mining engineers indicated that the entire, rugged region was rich enough in gold deposits to warrant development.

Gillespie learned that the gold ore outcroppings were covered by claims. Eventually he leased them. One claim covered an old mine shaft that had been worked previously. He sublet some of the leases but kept the one covering the old mine for his own operations. His crew is now blasting a cross-cut tunnel below the old mine shaft. Some of the richest ore tests as high as \$500 a ton.

"At first there was no reason to suspect I had leased the Lost Dutch Oven mine," explains Mr. Gillespie, "because my leases are all in the Old Woman mountains about 10 miles south of Danby. Tom Schofield's lost mine was supposed to be 10 miles north of Danby in the Clipper mountains. But I was curious enough to read the story."

Many versions of the Lost Dutch Oven mine story have been published since 1894. The following is a composite of several:

All these stories describe the same nar-



Clifford Gillespie holding gold refined from the ore from his tunnel under the Lost Dutch Oven mine. These ingots are "sponge" gold ready for the mint.

row, rock-cleft canyon and other landmarks. All are highly colored by their authors, this one no more nor less than the rest.

All versions of the story state that in June, 1894, Thomas Schofield traveled 200 miles out of the Mojave into Los Angeles. His pockets were filled with panned gold and gold ore for assaying. The assay proved his samples to be so fabulously rich in gold that the few who learned of his find became greatly excited.

Young Schofield said he had been drilling a tunnel in the Clipper mountains in search of a flow of underground water for the Santa Fe railroad. In 1894, Danby (like many a desert railroad siding even today) had no water supply of its own.

Tom Schofield was experienced in drilling and blasting tunnels in the solid rock. But being a born gold-pro prospector he spent every spare hour scouring the mountains for out-croppings of ore. One day he followed tracks of mountain sheep into a gulch he previously had not explored. He was surprised to see faint traces of an old trail. He followed it to a spring that trickled from a wall of rock to form a pool at its base.

Back-tracking over the trail he traced it with great difficulty over three low hills, the hogback of two ranges, and then into another canyon.

By this time he was thoroughly puzzled. He had explored these mountains for a long period without ever seeing a human

being. No one at Danby had even mentioned other prospectors in the region. But this evidently was a trail made by men, although it had not been used recently.

Finally it appeared to end in a blank wall. But desert trails do not end that way so he carefully retraced his steps and discovered faint traces of a path that led up a steep hillside.

Here he came to solid rock and the trail was no longer visible. His curiosity impelled him to go on toward two upright rocks, a cleft in the side of the mountain. The passageway between them was barely wide enough for a pack animal to go through.

Beyond he picked up the trail again. It led toward a black mass of rock, like an immense boulder. It was a conspicuous landmark. The route skirted around it. He stopped suddenly and shouted again and again, but received no answer except the echoes.

There before him was an old camp. Tent poles were still standing, with shreds of canvas flapping in the breeze. A bed of boughs was covered with a tattered blanket. A small pile of railroad ties lay at one side, some of them split into lagging for timbering a mine.

Nearby were mining tools, drills, axes, picks, shovels, a heavy hammer, all rusted from the weather and disuse. Still resting over its fireplace of blackened boulders was a rather large iron Dutch oven, such as miners used to bake their sourdough bread, fry their bacon, and sometimes for roasting out high grade ore. Tom scrutinized everything carefully but could find no clues to the owners, nor why, nor when they had left.

A distinct trail led on from the abandoned camp. Tom followed it up the mountainside. Perilously close to sheer drops of hundreds of feet, the crudely made trail led him over loose slipping rocks to a shaft on the steep slope, undoubtedly the mine belonging to the owners of the abandoned camp.

Eagerly Tom set to work to see whether this shaft was a dead hole or a once-in-a-lifetime strike. Crushing some of the ore he panned out rich findings of gold. The rock most heavily impregnated with gold was of a bluish quartz formation, a sulphide, so the assayer described it later. As he worked feverishly the sun went down with its usual desert suddenness, so he was forced to spend the night at the old deserted mine. Sleep was out of the question with that wealth of gold-bearing ore as a bed. And Tom Schofield now considered it all his own.

At daybreak he made further exploration of his treasure house. The shaft, he noted, was well timbered at its top with split railroad ties, the windlass still rigged with its rope and bucket. He lowered the bucket and estimated the depth of



Mel L. Williams and his assistant who are blasting the tunnel into the mountain to reach the Lost Dutch Oven vein, for Clifford Gillespie.

the shaft, then compared its depth with the size of the pile of ore on the dump. Very little of the ore seemed to have been taken away. He gave no thought to the extreme difficulty of transporting the ore down over the old trail until he started picking out samples of the best specimens to take along. He took all he could carry and went on down to the old camp.

He was hungry and thirsty, and he lifted his canteen only to find he had drained it during his soaring dreams of wealth. He poked around the discarded tin cans in search of something overlooked, but found nothing. Disgustedly, he kicked off the lid of the iron Dutch oven. Instead of food he saw gold. Pure virgin gold it seemed, along with finely crushed ore!

Tense with excitement he streamed the precious stuff through his hands. Here was the very essence of wealth, more than he could carry out even with a packed burro if he had one. Still, his miner's instinct told him to take some of the bluish ore just as it had come from the mine, so he emptied his pockets of all but a few specimens and refilled them with the glittering stuff from the Dutch oven.

Suffering from hunger and thirst Schofield stumbled his way back over the old trail and finally reached his camp. He went on to Danby and then to Los Angeles, guarding his secret until the stuff could be assayed. The assay proved him to be as rich as his wildest dreams. The Dutch oven gold that Tom carried in his pockets brought him enough money for a few weeks' fun in Los Angeles (\$1,000 according to one version). Then he took in a partner and started back to work his mine.

They searched for days without finding a trace of the old trail. Tom's partner quit

in disgust and, according to one version of the story, Schofield was never able to find the trail—nor has anyone else. The old ghost camp with the old Dutch oven full



This is the type of Dutch oven generally used by prospectors. The one Schofield found at the old mine was larger than this.

of gold, and a larger supply of the same gold that remains to be mined is still out there . . . just as Schofield left them.

And this same Thomas Schofield, "old Tom" now, has been living in the Mojave for many years while thousands have been searching for his "lost mine." He was living at Chambless when a party including the writer set out to check up on the evidence that the Lost Dutch Oven mine had been found.

At Danby, our party asked Johnny Neilson: "Do people ever come here asking about that lost mine in the Clipper mountains?" He looked up in surprise. "Why, there are some of them out looking for it now. They've been coming here ever since I arrived here 16 years ago."

Johnny Neilson owns a combination store, filling station and auto camp on the highway. From his place we drove a short distance south to the old Danby station on the Santa Fe, just a few shacks splotching the desert between the Old Woman mountains and the Clippers.

We took a rough miners' road off southward. From this we branched off into the foothills of the Old Woman range. Stopping at the mouth of a canyon, we followed footprints of mountain sheep for a few hundred yards to a spring seeping from the rocky wall into a drinking pool. Beyond this canyon the rough road crosses three ridges or hog-backs, then goes upward until it makes a turn onto a level space confronting a narrow passageway between two high ledges of rock. True to the story, it is "barely wide enough for a packed animal to pass." It fits the description unmistakably. You cannot doubt it is the one that Thomas Schofield discovered in 1894.

Now there is a cool spring near the entrance of the rock-cleft canyon. It is used by the miners who have sublet one of Clifford Gillespie's claims a few yards away. Winding upward, we sighted the old-time trail with the great, black boulder-like mass beyond.

On foot we followed the old trail, rounded the big black rock, came upon an old abandoned campsite. Smoke-stained boulders formed a fireplace. Other boulders were arranged in a rectangle that may

have been around a tent. We found tailings from past gold pannings, an ancient rusted camp stove, all there in evidence of pioneer gold prospectors' camp life.

From the abandoned campsite we climbed the old trail along the perilously steep canyon side, up to the weatherbeaten windlass over the old mine that is still timbered with split railroad ties just as young Schofield says he found it nearly 50 years ago. With the story in hand, we had followed the ancient trail, checked the fixed

landmarks, all pointing conclusively to the fact that here was the Lost Dutch Oven mine.

Can it be true that the stuff Schofield found assayed as rich in gold as the story states?

"Certainly," is the answer from prospectors and mining men. They explain it this way: The old-time operators of the mine concentrated, or high-graded their ore. Some of this ran as high as \$500 a ton, as is known from Gillespie's present operations. So they hand-picked chunks of this rich stuff, chipped out the softer bluish sulphide from the hard quartz, then pounded or ground the stuff. Thus, after panning or spooning it, they obtained a concentrate that could run as much as several thousand dollars a ton.

Why did those old-timers go to so much trouble? Because of the almost inaccessible location of their mine, it was not practicable to consider hauling out the untreated ore even though it averaged high in gold. But they could pack out comparatively small quantities of the rich concentrates and make the labor worthwhile, at least until they could finance roads and mining machinery.

But what about that Dutch oven filled with pure virgin gold? That is easily explained, mining men tell us. Dutch ovens were part of the camp outfits of the old sour-dough prospectors, used for baking and roasting over an open campfire. Present day prospectors use them too. They are made of heavy cast iron, with an overhanging lid, so that the oven can even be entirely embedded in hot coals. Prospectors found out they could use their Dutch ovens as crude smelters, especially for treating sulphide ore like that which came from this old mine. The hand-picked, pulverized sulphide ore was put into the Dutch oven, and roasted over a hot fire, made hotter maybe with bellows. Thus the sulphur was burned out, leaving gold mingled with fine stuff to be panned out to still purer gold.

Just why the old-timers never returned to their mine will never be known. Maybe those who took part in some barroom brawl could tell. Many things could have happened.

Why was Tom Schofield unable to relocate the old mine himself? He is a veteran prospector who knows this part of the desert like a book. What does he say about the mine which Gillespie believes to be the Lost Dutch Oven—now actually being worked?

Tom is non-committal. He never gives direct answers to questions about the lost mine. He talks freely, but never discusses location, nor details, except to say that the amount of gold he took from the Dutch oven has been greatly exaggerated in the re-telling of the story. He doesn't try to mislead anyone, he just rambles on about the great mineral wealth of that area.

TRUE OR FALSE

Here are 20 new headaches for the desert fans who like to find out how dumb—or smart—they are regarding information of the Southwest. The subjects include geography, history, botany, geology, Indians and the general lore of the desert. It is no test for a one-track mind. Try it anyway, and if you don't know all the answers you will at least learn some new facts about the most interesting area in United States. If you get 10 correct answers you know more than the average person. If you score 15 you are in a class with the desert rats. No one but a super-student of the Southwest would answer more than 15 correctly. Answers are on page 32.

- 1—According to geologists there are three general types of rocks: igneous, sedimentary and metamorphic. Sandstone belongs to the igneous group.
True..... False.....
- 2—Navajo Indians were breaking and riding wild horses before the white man discovered America. True..... False.....
- 3—It is easier to drive your car over sandy roads when they are wet than when dry. True..... False.....
- 4—If the government builds a new dam at Bullshead canyon that will be the sixth dam in the Colorado river below Grand Canyon. True..... False.....
- 5—Datura is the name of a wild desert plant with narcotic properties.
True..... False.....
- 6—The state university of Arizona is at Phoenix. True..... False.....
- 7—According to history, the Pima Indians often joined forces with the Apaches against the white man. True..... False.....
- 8—The Bright Angel trail crossing of the Colorado river is below Navajo bridge.
True..... False.....
- 9—Furnace Creek Inn in Death Valley is operated by Death Valley Scotty.
True..... False.....
- 10—Elephant Butte dam is in Arizona. True..... False.....
- 11—Sailing vessels from San Francisco once navigated the Colorado river as far as Yuma. True..... False.....
- 12—Woodpeckers often drill holes and build their nests in Saguaro cacti.
True..... False.....
- 13—Kaiparowitz is the name of a plateau in Utah. True..... False.....
- 14—It is against the law to use dead ironwood for campfires on the desert.
True..... False.....
- 15—Chuckawalla wells was a watering place on the old Bradshaw road from San Bernardino to La Paz. True..... False.....
- 16—The Santa Fe railroad follows the approximate route of the old Santa Fe trail to Los Angeles. True..... False.....
- 17—Carlsbad caverns are maintained and supervised by the U. S. Park service.
True..... False.....
- 18—The ghost mining camp of Rhyolite is in Nevada. True..... False.....
- 19—Historian who has contributed most to present day knowledge of Juan Bautista de Anza and his historic treks to California in 1775 and 1776 is Herbert E. Bolton. True..... False.....
- 20—Indian service agency for the Hualpai Indians is at Walpi.
True..... False.....



Camp of present operators of the old mine, which is located on the mountainside in the background. A road still must be built to the shaft before ore can be removed in quantities.

"Someone will find it," he asserts. "It may be you. Maybe it'll be me.

"I'm 80 years old," Tom told us and his leather-brown desert-seared face looks every year of that plus many more. Some of his Mojave friends say he has lived well over 90 years instead of a mere four score. Somehow Tom Schofield brings up vague remembrances of some character out of a book read long ago or more recent fictional personalities of the stage or screen.

Just how hard has dreamy old Tom Schofield looked in the Clipper mountains for his lost mine? In fact, did he ever actually state he found it there or did he merely say he was employed to try to find water in the Clippers when he took it upon himself to prospect for gold? No one but he knows the answers.

It is known, according to mining men, that the Clippers are not the sort of place for finding rich gold deposits. It is well known that searchers, estimated to total thousands, have combed the Clippers since 1894 without finding any resemblance to the landmarks of the story, let alone the old mine itself, and many of these searchers were experienced gold prospectors well able to pick up the slightest clue.

It is definitely known that patriarch Thomas Schofield has a record of numerous discoveries of valuable mining property in the Mojave. Right now he has a monthly income from one mine alone more than sufficient for his needs, according to neighbors and Los Angeles mining men. Tom's friends say he leads a simple,



The old trail to the Lost Dutch Oven, with the black boulder in the background.

happy life, yet is known to spend money at times with the wild lavishness of an eccentric millionaire.

"Tom sold a mine for \$15,000 not long ago," Fred Miller told the writer, "then spent it all on foolish things such as buying a truckload of toys for the children around here." Miller has charge of the pumping plant for the Santa Fe at Danby.

"I get letters from all over the country," old Tom told us. "And foreign countries too," he added in his evident enjoyment of living in the glamour of a mystery never solved.

"There's everything out there," Tom said with a sweeping wave of a wrinkled hand. "Manganese, tungsten, quicksilver, all the things the government needs for war materials. They are all here." Slowly he continued: "Enough for everybody," as though he thought, because he has pros-

pered here in the Mojave, others can too, even though no one ever discovers the Lost Dutch Oven mine.

"And people are never sick in this desert," old Tom Schofield told us, as he looked far away. "Never was a doctor here. Nothing for him to do. No one ever dies out here."



GRAPEVINE CANYON

Winner of Desert Magazine's August Landmark contest was Mrs. Percy Train of Genoa, Nevada. She identified the accompanying picture as Grapevine canyon in southern Nevada, and her excellent description of the petroglyphs and directions for reaching them are published on this page.

By MRS. PERCY TRAIN

THE photograph of one of the finest exhibits of petroglyphs appearing in the August, 1941, issue of Desert Magazine under the caption "Art of the Ancient Indians," was taken at Grapevine canyon, Sackaton spring, southeastern slope of the Newberry mountains near the Colorado river, southeastern Clark county, Nevada.

This isolated canyon is approximately 40 miles southeast of Searchlight, Nevada, one of many stretching from the Newberry mountains eastward to the Colorado river. Close to the mouth, or entrance to the canyon, a small permanent spring occurs and this cold water supply is as welcome to the desert traveler today as it must have been to the vanished Indians whose writings have been so wonderfully preserved. The huge exposure of rock is today high above the present canyon floor, and it is likely when the writings were made at this pleasant camping spot the canyon floor was much higher. Even today we know of gulches being cut 100 feet deeper as a result of a heavy cloudburst.

We visited the southern tip of Nevada in early April, 1938. We were botanists conducting a plant survey of Nevada for the U. S. bureau of plant industry at Washington, and our work takes us on the

little used roads and trails, through mountain and desert not traveled by many. One thing we learned years ago: No matter how well informed and able a "desert man" one thinks he is, never leave for unfamiliar country without securing all available road and water conditions from the nearest community or camp. We left Searchlight with a sketch map drawn on wrapping paper and it was not far from hand for a week as our botanical collecting proceeded. I will admit we were happy to find R. B. Porter at home at his mine and he acted as guide to Grapevine canyon. From his direction we found the road to the abandoned experimental date farm and on south to Needles.

Grapevine canyon receives its name from a healthy and vigorous stand of *Vitis arizonica* (wild grape) found growing up in the canyon at the head of the spring and above the Indian rock writings. The minute I saw the pitchfork glyph with the man's hand on the handle, I knew I had taken my photograph (which you will find enclosed as proof) from the same spot as the one in the Desert Magazine. There were many other petroglyphs all around the entrance to this canyon, indicating it had been a favorite watering

place or hunting base for those long ago tribesmen. If the weather was bad there were spots where overhanging ledges afforded shelter, no doubt wild game in abundance came to this spring.

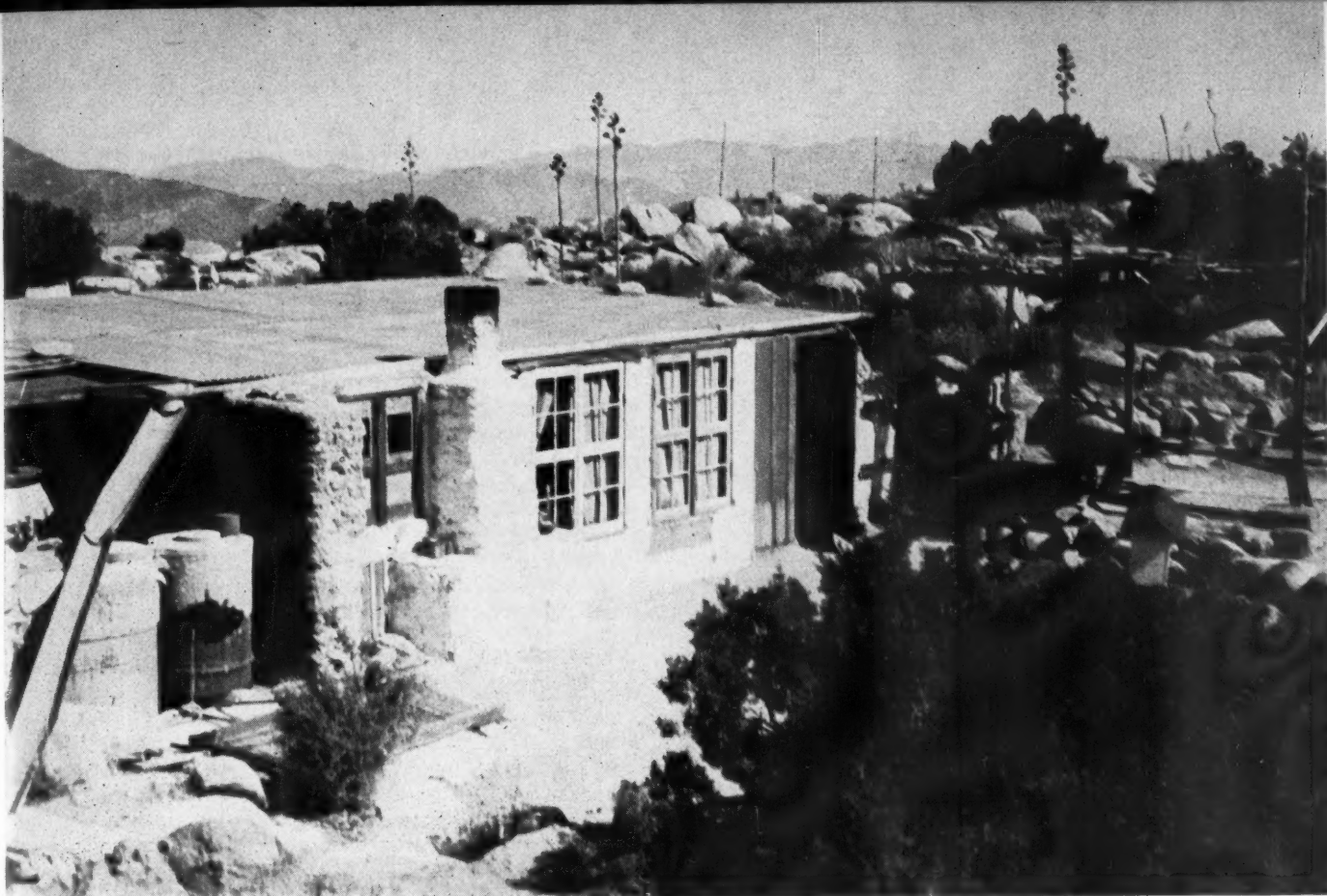
One cannot view petroglyphs in various parts of Nevada without realizing that each locality seems to have a type of design peculiar and distinctive, these at Grapevine canyon being quite different from those found in the Valley of Fire near Overton, Nevada, or on Irish mountain near Hiko, west of Caliente, Nevada. In this canyon I found a single slab of volcanic rock across whose black surface scampered five perfect mountain goats in a row. Often one or two appear, but the ancient artist must have told the story of a good hunting ground, for he depicted five and my photograph was given to the museum at Boulder City, Nevada.

Directions: Searchlight, Nevada southeast to Hiko spring, 30 miles; Hiko spring to R. B. Porter mine, 7 miles; Porter's mine to Grapevine canyon, 8 miles. Total, 45 miles.

Grapevine canyon may also be reached by going north from Needles, California, through the old abandoned experimental date farm, thence north and a little east to Hiko spring.

Directions: Needles to experimental date farm, southern tip of Nevada, approximately 30 miles; experimental date farm to Hiko spring, 13 miles.

Warning: Water and gas should be carefully checked and sketch map directions secured from Searchlight or Needles residents who have been there as the canyon is not easy to find.



Desert Refuge

Marshal and Tanya and the little Souths waited all through June and July for rain. Their cisterns were nearly empty—and the rain gods seemed to have forgotten that life on Ghost mountain cannot go on without water. Then early in August the storm came—a deluge that not only insured drinking water for many months, but provided moisture for more adobe walls. You'll have a better understanding of what rain really means to desert people when you have read this episode in the lives of the South family.

By MARSHAL SOUTH

HERE is rejoicing upon Ghost mountain, for once more all our water cisterns are brimming over. Even the "lake," as we term the big cement lined excavation that will some day be an additional reservoir, is half full. For three days ago, after a long "torture of hope" during which heavy thundershowers marched in complete circle around us—drenching the lowlands and mountains within a mile and leaving us bone dry—the rain gods relented.

There was drama in their storm-sending too. And rebuke. For we had gone to bed dispirited and, let us confess it with shame, rather a little angry and full of complaint. All the day long we had sweltered in the hot, heavy atmospheric breathlessness which precedes a desert deluge. And all day the sullen thunderheads had banked around us, glooming the sky everywhere except for one clear spot, seemingly not greater than the area of our mountain, that hung directly over our heads. And it had rained. In sheets and curtains of slashing grey the forked flails of the lightning had ripped waters from the heavens—to north, to east, to west, to south. But not here. "All we get," said Rider bitterly, sniffing the damp fragrance of the breeze that came up in the evening from the distant lowlands, "—all we get is the *smell*."

This is Yaquitepec—the Souths' adobe home on the top of Ghost mountain. Marshal and Tanya and their children depend for their water supply on the rain that falls on this roof, and is carried by the spout on the left to two cement-lined cisterns. Thanks to a generous storm in August, the cisterns are now full.

So we had gone to bed disgruntled, trying hard to be philosophic in the knowledge that sooner or later our turn would come. But, after the manner of frail humans, not succeeding very well.

But the grey, still whiteness of the next dawn crept across the desert to the hollow rumble of heavy thunder. Far off, but approaching. Hardened by so many previous disappointments I noted it with a drowsy mental shrug. And went to sleep again.

"Daddy! Daddy! Wake up!—it's raining!"

I woke with a jerk—in more senses than one—for Rider's hand was upon my arm and he was shaking me vigorously. "Real rain," he said breathlessly. And, as I sat up, fighting the sleep from my eyes, I heard Rudyard's shrill refrain piping from the next bed: "Yes, weal *wain*! You gotta get up an' fix the 'pouts! Hurree daddy! Hurree!"

So I got up hastily—Rudyard is very definite in his commands and has all the authority of extreme youth—and rushed out to "fix the spouts." The spouts and water gutters always have to be "fixed"—that is, swept out and cleaned—immediately before a rain. It is a last minute chore that no previous planning can avoid. The reason is that the Ghost mountain pack rats, secure in the truce of brotherhood which reigns at Yaquitepec, long ago decided to use our gently sloping house roof each night as a dance floor. Which would be all right, for they are lovable little animals, if they did not also use the water gutter as a check booth in which to park bits of cholla, the dry rinds of cactus fruits, mescal pods, dead juniper sticks and all the thousand and one other classes of trashy "valuables" which pack rats—exactly on the order of humans—lug along with them and regard as "very important." And which they conveniently forget—in the water spout. It isn't any good to clean the spouts the night before, except as to a reduction in labor. For the next morning will find a new collection.

"Hurree, daddy! Hurree!" shrilled my imperious taskmaster,

racing, a bare-skinned sprite, after me into the dawn, "Hurree! Hurree!"

And there was need of hurry. For ominous big drops were already plunking in wide-spaced intervals upon the iron roof. Far aloft we could hear that weird, sinister rushing sound—like the churning of a great wind—which is the advance message of released rain masses already plunging downward towards a thirsty earth. Rider was dashing here and there, closing shutters, dragging dry firewood into the kitchen and setting the innumerable pots, pans, pails and jars that are his own personal water-catching outfit, beneath the run-off and drip point of every inclined flat surface not connected with the main gutter system. We all worked fast. But I had barely tossed out the last bit of cactus joint and given the clean metal gutter a final wipe with the damp cloth when the deluge struck in a blinding white fury. Junipers, rocks, ocotillos and tall podded mesquites blotted suddenly in a sheet of falling water. Rider and I reached shelter in a spume of stinging drops that seemed to tingle with the electricity of the forked fire that of a sudden split the sky overhead with a deafening crash. Rudyard bolted in at our heels like a little drenched duck, water pouring from his tangled brown curls. Then it rained!

The storm lasted half a day, with the first fury—when the water fell in solid curtains, succeeded by scattered and dwindling showers. The day previous Rider and I had collected a bundle of yucca leaves, with which to put a new seat in one of our chairs. A lucky circumstance, for now there was an indoor job all ready to hand. So, while Tanya sat in the window seat explaining the rain in complicated baby-talk to wide-eyed little Victoria, I and my two eager assistants hunted up awls and began to shred the long green bayonet-like leaves into quarter inch strips. The big leaves shred readily, following the lines of the fibers that run from butt to tip. When the leaves are fresh cut these strips are very pliant and braid or twist easily; but if they are dry they quickly can be gotten to the right condition by soaking in water. When we had accumulated what looked like a sufficiency of strips—in spite of Rudyard's "assistance," for he has rather elastic ideas at present on what constitutes a quarter-inch width—Rider brought the forlorn chair that needed fixing. It was in a bad way, never having recovered from the time when Rudyard invented a dramatic game called "Beeg fire on Bwoad-way. Peoples jumping into net." He had used the cane-bottomed chair as the "net", jumping lustily into it from the height of a box set upon the table. The drama had been suppressed quite suddenly by unimaginative grown-up "police." But not in time to help the chair much.

Well, what is one chair seat, anyway, in the scheme of things. Kingdoms, we have been told, have crumbled for the want of a horseshoe nail. And heaven alone knows how many automobile classics have been lost to unprogressive speed drivers who neglected to use "whoozawizz" spark plugs. So why worry about a chair seat? I cut out the old torn bottom and began to braid in the new one. We have found that braiding, after the manner of the South Sea islanders with their coconut fiber, is the best treatment for yucca.

It is a fairly long job to braid the seat into a regular sized chair, braiding as one goes and lacing the completed cord back and forth, basket fashion. So by the time the rain was over and the children were racing up and down through the puddles in the hot sunlight that had broken through the scattering clouds the chair was about finished. Not a brilliant example of weaving, perhaps, but something that would serve well enough. I clipped the last strand end, set the chair by the table and went out to sniff the fragrance of the damp, rejoicing, sun-sparkled desert. Tanya and Victoria were already out, sitting on the damp rock step beside the "lake" watching Rider and Rudyard sailing their long-stored boats. Over the crests of the clean-washed juniper trees winged, like migrating fairies, a wide scattered drift of gauzy-winged flying ants. "Plush bugs," as Rider calls the bright many-legged, fluffily scarlet little round insects which appear mysteriously after warm weather rains, were already ambling about underfoot.

It is true enough, as Kipling said, that "Smells are stronger than sounds or sights to make your heartstrings crack . . ." But of all the scents that can stir up haunting memories and sheer delight for the human nostrils I know of none half so potent as the fragrance of the desert after rain. It is something too deep and subtle for description. If you know it you know what I mean. And if you have never lifted your head and drunk in the winey, aromatic fragrance that wells from the grateful earth and stretching leagues of wasteland after a heavy shower, you have missed something—missed one of the greatest and most mysterious thrills that the wilderness holds. To stand in the midst of a sunlit, rain-washed silence and drink deep of this prayer of thanks, welling up like incense from plant and shrub and rock and spiny thorn to the Great Giver of all Mercy, is a moment—a sacred moment. One stands awed, listening to one's own humble heartbeats. Thus stood our dusky brothers, the "savages" of the dim, fled yesterdays. With them the Great Spirit was something *real*—not an empty thing, blurred in a tinsel mockery of Sunday clothes and stereotyped ritual and hollow words.

But rain at Yaquitepec means not only water in the storage cisterns. It means mud. Mud is a valuable thing. So long we have been without it. Or, having it, have had it in little dabs—as much, maybe, as one can obtain from a pint of wash water, or from the frugally saved unused portions of a brew of tea. Such dabs take a tedious time in making a showing upon an adobe wall—though we can point to considerable areas of the mud walls of Yaquitepec that were built in just such piecemeal fashion.

But now is one of our widely spaced periods of abundance when we *revel* in mud. There is mud upon my hands as I write, and mud upon my feet. Dried mud that has been imperfectly scraped off. Rider, still working at outdoor jobs, is pleasingly decorated all over with wet, clayey signs of toil. Rudyard has mud in his hair. Purposely put there, we discovered later, as a result of his having remembered a story told some time ago by a visitor to the effect that the Apaches plastered their heads with mud as a hair tonic. Even Victoria has had her innings. For seizing an opportunity, she crawled off her rug and into a gooey batch of adobe which I had just trampled to the right consistency. In the ensuing cleansing operations, to the accompaniment of lusty yells, Tanya got well muddled too. So that makes it unanimous.

But a lot of new wall has gone up, built with a shovel and a trowel and the plain bare hands, and in breathless haste—racing against the swift soaking away of the surface water in the open pools, from which we take it. In some of the pools that have been previously well trampled by our bare feet—after the manner of the old buffalo wallows on the plains—there is still water standing. So for a day or so yet there will be mud—and wall building. Then again operations will stop. Thus, in such fits and starts, goes our building. Woefully primitive, of course. But we are shamelessly unashamed of the method. And it is likewise quite true that the house isn't finished as yet. Nor are we anxious to have it so. "Finished" is an ominous word, reminiscent, somehow, of the practice of sending elegant young ladies and young gentlemen to an elegant "finishing school." Too many things, now, in this era's progressive set-up, are regarded as "finished." And a lot of them frequently are.

UPWARD

*Break the trail a little higher,
Push along and try.
There's no limit to desire,
Save the sky.
And when eventide is dimming
Others' hope,
You will have new vistas rimming,
And new scope.*

—Tanya South



Opuntia ramosissima

By ROY MILLER

"PERENNIAL, succulent plants, various in habit, mostly very spiny"—so begins the original description of the cactus family. For every rule there is an exception, so right here in our Southwest desert we have the only species in the entire cactus family which is not succulent, *Opuntia ramosissima*. Growing as it does with a woody trunk and branches covered with rough bark, it is often mistaken for some sort of desert brush or shrub but on close inspection it will be found to be a true cactus. Only the outer tips with new growth show any signs of succulence and then not more than is often found in the new growth of any shrub or tree.

Common names sometimes given to this plant are "lead pencil cactus," "darning needle" and "lady-finger." The branches are marked throughout their length with small heart-shaped tubercles which are flat and crowded closely together. The areoles are at the top of each tubercle and are a tiny deep slit filled with glochids which can be seen only by cutting or breaking the stem, as they do not grow long enough to reach the surface. Near the tip of the branches each areole usually has one long yellow spine, often reddish at the base and covered with a loose paper-like sheath. Occasionally plants will be found which are completely spineless. This is not a different species, as is sometimes believed, because spiny plants often have branches on them that are entirely spineless.

The flowers bloom at the tips of the branches, usually appearing during May. They are small—less than an inch in diameter—opening out flat, and nearly always have a pale greenish-yellow color. Near Lost Palm canyon I once found a few plants with old rose colored flowers—a decided improvement, I would say, if nature could be induced to paint all *ramosissima* flowers this color. The fruit soon follows the flowers and is oval or egg shaped up to an inch long, and covered with white wool and bristles.

Opuntia ramosissima can be found scattered over nearly all of the desert country

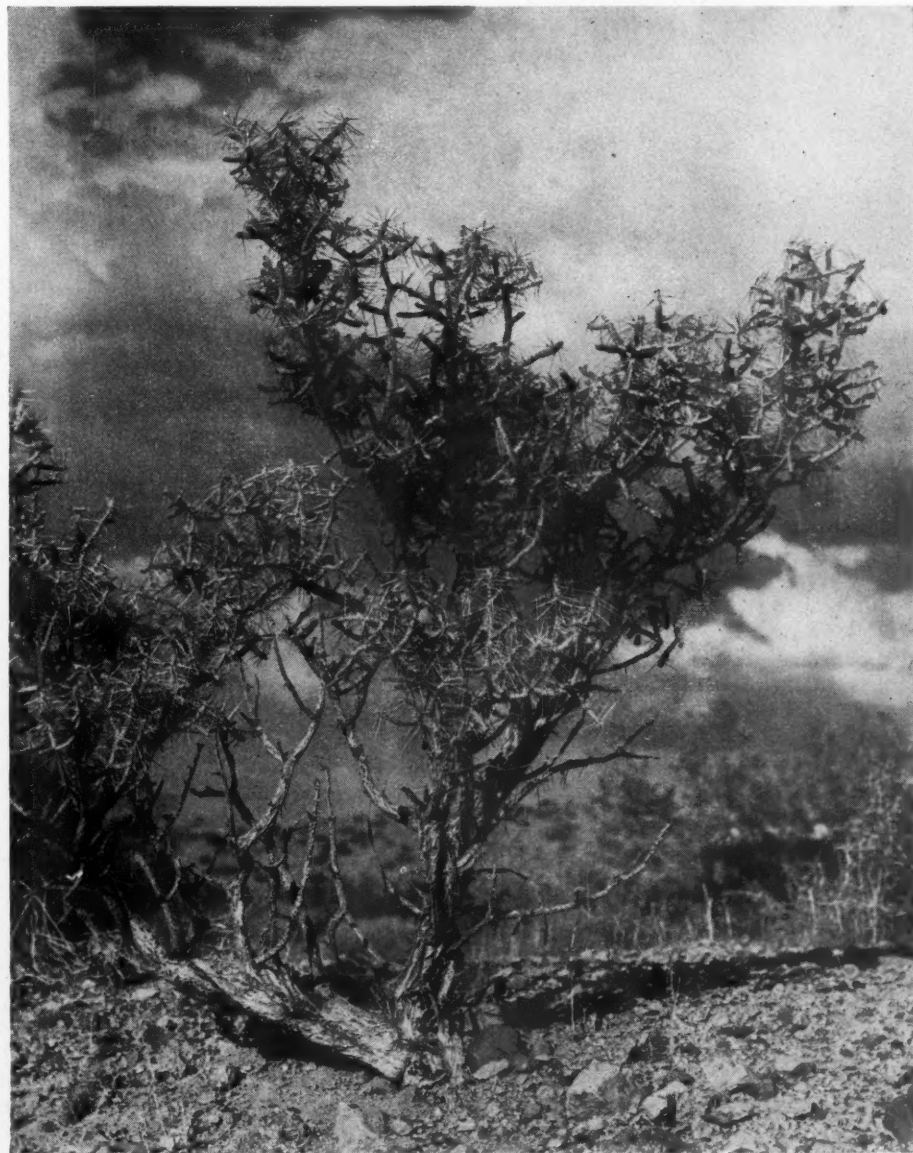
of Southern California and ranges into western Arizona and southern Nevada. Throughout this territory its only barrier seems to be extremes in altitude. The largest and best plants are found at from 2,000 to 5,000 feet, while only stunted plants or none at all will be found at very low or very high altitudes.

Opuntia ramosissima is a difficult plant to establish in cultivation. Due to its non-succulent nature, cuttings should not be

treated like any other species of cactus but may be put immediately into wet sand or soil for rooting, with little danger of rot or infection. I have even seen cuttings rooted in water! Perhaps the best way to handle this species would be to treat cuttings the same as rose bush. Any method is foredoomed to a low percentage of rootings but plants once established grow for many years.

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Southwest Cactus Growers, at their July 9 meeting in Los Angeles elected the following officers for the coming year: John Akers, president; Homer Rush, vice-president; Mamie Abercrombie, secretary; Hubert Monmonier, treasurer. E. S. Taylor, Wm. O. Bright and George Olin compose the executive board, and temporary appointments went to Mrs. Hazel Miller, magazines; Mrs. Ethel Rush, newspapers; Mrs. Walter Runyon, librarian.



A typical plant of Lead Pencil cactus from the Ord mountain region.



The Hermit of Impassable Canyon. His greeting was far from cordial, but when we offered him a cigar he thawed out a little.

"*I* F I'D known you fellows were coming, I'd have gone and hid in the timber." That was the greeting we received from the Hermit of Impassable Canyon after we had spent two weary hours climbing to his almost inaccessible mountain retreat. And he didn't say it with a smile—he was deadly serious.

We were a party of eight under the leadership of Dr. Russell G. Frazier, making a voyage in small wooden boats through the roaring Middle Fork of Salmon river in Idaho. Old-timers had told us it couldn't be done, and they were 98 percent correct. We had dragged the boats over miles of granite boulders, lowered them over innumerable falls, turned over uncounted times, punched the bottoms out on hidden rocks, and snapped 12 oars. Weary and battered we entered Impassable canyon, a narrow slit cut by the river through the towering peaks of Idaho's immense primitive area, the wildest spot in the United States.

Half way through the canyon we saw traces of old placer workings and stopped to investigate. On the bank, hidden by rocks and brush was a grub cache bearing a penciled sign, "Everything in this cache is poisoned." From the workings a very dim trail zig-zagged up the steep canyon wall.

This was too much for our curiosity, so we started climbing. The trail, we soon found, was so steep that ladders had been fixed in several different places to make the ascent possible. We climbed 2,000 feet before reaching the mountain top, then followed a trail through yellow pine another mile before discovering a small log cabin and a beautiful garden in a little valley

Here is the story of a man who wanted to go so far away from civilization that no one would ever find him—and he nearly succeeded. Perhaps it is not a life that you and I would want to live, and yet it has its compensations. At least he has found contentment.

Hermit of Impassable Canyon

By CHARLES KELLY

watered by a mountain stream. Signs on the garden fence and over the cabin door warned us that everything inside had been poisoned.

Smoke issuing from the chimney indicated the owner was not far away. We found him asleep in his bunk. Startled, he stepped outside into a circle of eight very rough looking individuals. His greeting was far from cordial. We told him we had come down the Middle Fork in boats, but he knew that was impossible. Were we prospectors? No. Were we hunters? Again no. Then what were we doing in his little empire? Our answer that we were just looking at the scenery was, to his mind, silly.

When we started photographing the old man and his cabin he was annoyed, but did not openly object. We offered him cigarettes and he refused. But when one of the party produced a cigar he seemed to thaw out a little. Later, when he was presented with a full box of cigars he forgot his suspicions and told us part of his story—but only after we had promised not to use his name.

The Hermit, as I shall call him, was 76 years old. He was born in Iowa, but had joined the gold rush to the Klondike in 1898. Returning, he found his sweetheart married to another man. He put his gold dust in a bank which promptly failed. Broke and disillusioned, having lost his faith in both men and women, he started in search of the most inaccessible spot in the United States. And that is where we found him.

He could not have done better. His hermitage, in 1900, was 40 miles from a trail and 60 miles from a postoffice. He built a log cabin, bought a variety of seeds, planted a garden and made himself independent of the world. The cabin, about 10 by 12 feet, was built partly into the hillside, making it warm in the winter. There was a fireplace in one end in which the fire seldom went out, a door on leather hinges, and a small window without glass. Near the fireplace was a small table and a chair; in one corner a bunk about four feet square partly filled with dry grass. A shelf contained a few tin dishes and some ancient dog-eared magazines. Under the bunk were a few traps, and a cake of soap in a washpan half-filled with dust. The cabin, roofed with shakes, was shaded by a beautiful spruce. Nearby was a large dead pine, cut into lengths for firewood. An axe, a

saw, a home-made wheelbarrow and some garden tools completed his outfit.

"Do you have many visitors?" we asked by way of opening conversation.

"When I first came here," the old man replied, "I didn't see anyone for sometimes two or three years at a stretch. But now-a-days hunters or prospectors drop in almost every month. It's a damned nuisance."

The Hermit volunteered no information, but answered our direct questions as briefly as possible. We learned that he raises all his own food in his garden, drying much of it for winter use. He has a three years' supply of corn, eating only corn bread and grinding the meal in a coffee mill. He has bought no new seed since 1900, but his potatoes were the largest and finest we ever saw. He is not bothered with insect pests and plant diseases. One bear, killed in the late fall, furnishes a year's supply of fat, while deer, mountain sheep and mountain goats supply his table with meat during the winter. He eats no meat in summer. From deer hides he makes his winter clothing, including shoes.

During the spring and summer he cultivates his garden. After the crops are harvested he pans a little gold from the river. Many tons of granite boulders must be moved to obtain a cubic yard of sand, and the flour-gold is so fine much is lost in panning. An ounce, at present prices, is enough to cover all his outside expenses for a year. His total expenditure is less than eight cents a day, which covers ammunition, salt, tea, a pair of overalls and a shirt for summer wear. He packs all his supplies on his own back from the nearest store, now 30 miles away. He never calls at the postoffice—he doesn't write any letters nor expect any mail.

"Do you ever attend movie shows when you go out?" one of the boys asked.

"I did once, about 20 years ago," the Hermit replied, "but the dying-calf expressions of the actors made me sick."

"Why don't you have a radio?" another asked.

"I've heard 'em in town," he replied, "but I'd much rather listen to the coyotes howl."

"Why don't you keep a dog for company?"

"I had a dog once, but I had to carry him up and down the trail and I got tired of it. I had a cat, too, but it got lonesome and ran away."

"How do you spend the long winters up here," asked Dr. Frazier by way of keeping the conversation going.

"Sleep most of the time," he replied. "Cook one meal a day and then go back to bed. Sleep about 22 hours a day." Here was proof that human beings can actually hibernate.

The Hermit reluctantly accompanied us back down the trail to our camp on the river, where we gave him various articles from our supplies, including empty containers, a shovel, nails, wire, and all the salt we could spare. Thinking to entertain him, Dr. Frazier talked for an hour on the new developments of science—talking pictures, television, aeronautics, medicine and surgery—but the Hermit fell asleep. He did ask us who was president of the United States and was surprised when we said Roosevelt. He had heard Teddy was dead. What difference did it make, anyway, to one who does not vote, pays no taxes, is not on relief and never heard of old age pensions? Why should he worry about domestic political squabbles or European wars?

Around his neck the Hermit wore a buckskin thong on which was hung a heavy .45 Colt revolver. We asked him why he carried it.

"Some people think I carry this for fear of being robbed of my gold dust. I haven't any buried gold; I only pan what I need, about an ounce a year. Why wear myself out accumulating something I can never use? Some day, going up or down this trail, I might fall and break a leg. When I do this old .45 will come mighty handy."

The Hermit ate supper with us, sat around our campfire until 10 o'clock and refusing our invitation to stay all night, climbed back up the mountain over a trail which had been diffi-



He pans a little gold—about an ounce a year—and that is enough to buy the necessities of life.

cult for us in daylight. We thought we had seen the last of him, but as we were pushing off next morning he suddenly appeared again, dripping with sweat after running down the mountain. He had forgotten to thank us for the salt!

We left him with regret, knowing we had only gotten a hint of a story he did not wish to tell. But we realized, as we discussed him around our campfires, that he had evolved a philosophy in some respects superior to ours. Dependent entirely upon his own efforts he looked upon the modern theory of a government controlled Utopia as the most sublime folly. He had, for the past 40 years, ceased pursuing that mirage we call happiness, and had found what is even more precious . . . contentment.

NEW COLORADO RIVER DAM AT BULLSHEAD CANYON TO CREATE 66-MILE LAKE

Sale of electrical energy is expected to repay the entire \$41,200,000 cost of the new Colorado river dam authorized by congress to be constructed at Bullshead canyon 67 miles downstream from Boulder dam.

According to figures given out by the Reclamation bureau, the new Davis dam, named in honor of Arthur Powell Davis, former director of Reclamation, will be 338 feet high and 1,350 feet long. Power plant will have a capacity of 180,000 kilowatts. It will create a reservoir with a capacity of 1,940,000 acre feet, and the water will extend upstream to the tailrace of Boulder dam. Work is scheduled to be underway before the end of 1941.

DESERT GLORY

By H. S. BOTSFORD
Los Angeles, California

I wonder if you may have known
The glory of a desert night,
When all the stars that ever shone
Make up its pageantry of light.

Silence at first, a brooding peace
Which settles o'er the fevered sands
And from the hot day brings release,
Like laying on of cooling hands.
A quiet, as if the tortured life
That battles through the sun-scourged
days,
Now sleeps, exhausted by the strife
And struggle of the desert ways.

Then softly, lest it mar the calm,
But grateful for these shadowed hours,
The desert breathes a murmured psalm
In praise of nightfall's healing powers.

While overhead, where one star's beam
Shows in the city's duller sky,
A hundred stars with brighter gleam
Within a seeming hand-breadth lie.

I'm sorry if you have not seen
The glory of a desert night—
The peace, the stars, the silver sheen
Of sand beneath the full-moon's light.

INDIAN IN AN EASTERN CITY

By FRANK MCCULLOUGH
Fernley, Nevada

I want to go back to my own land, where the
Desert dreams in the sun,
And all I ask is a broncho horse, and a trail
to ride him on,
And a gray land, and sage brush smell, and
white clouds flying,
And a clean wind from the high peaks where
a summer day is dying.

I want to go back to my own land, where I know
the stars as friends,
When purple haze on the hills has gone, and
night with the twilight blends.
And all I ask is a white trail, and camp when
day is done,
Where a canyon runs from the desert's edge,
and is lost in the setting sun.

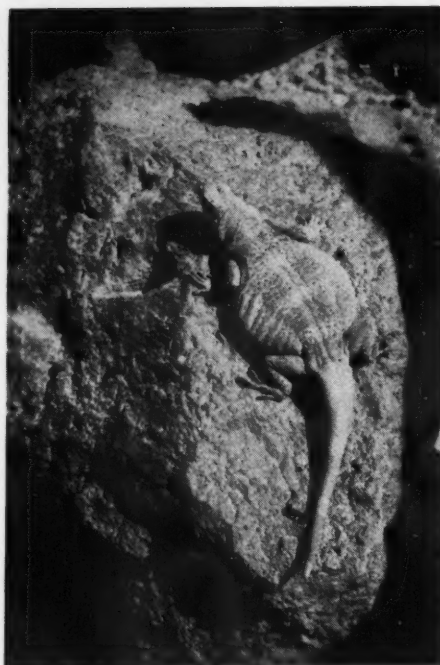
I want to go back to my own land, to the
easy carefree days,
For I'm sick of the sounds of the city's streets,
and I'm sick of the city's ways.
And all I ask when the trail's done, and
time has turned the page
Is a chance to sleep through the long, long night
amidst moon-silvered sage.

UTOPIA

By OWEN SONNE
Walla Walla, Washington

Bequeath to me the Desert's magic views:
When twilight's purple shadows seem to
flow
Across the sands, and sunset's afterglow
Becomes a tapestry of brilliant hues;
Where wake of day's retreat bestirs the Muse
Of brush and pen; where myriad charms
bestow
A mental peace. Appease the urge to know
These rarities that urban haunts refuse.

No other grant will serve. I do not seek
For wealth appraisable in terms of gold.
Instead, restore the color to my cheek;
Relieve my spirit of the galling hold
Of waning health; inspire my voice to speak
In youthful terms, although in years I'm old.



Sun Worshipers

By LEONIE HUNTER
Pomona, California

Like the chuckawalla,
The tortoise and horned toad,
And the lazy lizards
Basking near the road,
I too, feel the languor
That enthalls each one
And join the desert denizens as
A worshiper of the sun.

YEARNING

By JUNE HOUSTON
Miami, Florida

O, to see just once again
A peaceful star-lit night,
A long warm day, a bright blue sky
And other desert sights.

O, to see the cowboys ride
Or watch them rope a steer,
Then sit around a campfire bright
Their songs and stories hear.

I long for things that can not be,
And while I'm far away
A wealth of vivid memories
Are with me night and day.

CELESTIAL ARTIST'S MASTERPIECE

By ELMO PROCTOR
Yermo, California

Why does the artist portray the nude?
For Beauty's sake.
Why did God leave Mojave's mountains bare?
For Beauty's sake.
All who admire Beauty, unadorned,
In Godly undraped nakedness,
By progress undeformed,
By men still undefiled,
With ecstasy will view
Mojave — naked — wild.

CREED OF THE DESERT

By JUNE LE MERT PAXTON
Yucca Valley, California

Old grizzly cactus, with whiskers grey
Looks o'er the valley at close of day.
Much thinking he does, but says not a lot,
For he is quite wise, this old patriot.

THE MUDSWALLOW'S RETURN TO PARKER DAM

By CHARLES F. THOMAS, JR.
Parker Dam, California

Joy there is in your returning,
As in darting curves you swing.
Home from some far off sojourning,
Winged harbinger of spring.

Is the stuccoed home deserted—
Ready for your tenancy?
Or must labor be exerted,
Payment for your vagrancy?

Did the winter's strange transition
In your questing let you be
With your cousins from the Mission
Capistrano, near the sea?

Are the fledglings, who, first flying
Winged their way from last year's
nests,
With you here and this year trying
Nature's arts and strange bequests?

Busy flights through days unceasing,
Mark the hours as they speed by;
'Til the summer's tasks releasing
You to vanish in the sky.

FLUTES OF THE DESERT

By SARAH D. ULMER
Tucumcari, New Mexico

I like to lie in the nighttime
When darkness envelopes the plain,
Discern the flutes of the desert
In muted far-spilling refrain.
They filter into my dreaming . . .
Unconscious I sense the rich strain,
That mellowed drifts me to waking,
Like soft-padding patter of rain.

I love the flutes of the desert—
Their music comes winging from afar.
It rides the night through the silence,
Borne straight from the path of a star.
For years my slumber they've broidered—
The loveliest strains that there are.
Oh, grant the flutes of the desert
May play as I'm crossing The Bar.

CLOUD OF THE DESERT

By MARIE ZETTERBERG JELLIFFE
Claremont, California

I am a cloud. My place is here.
Over the desert I swing with pride.
Before the hot sun and wind I ride;
To the warm plain give coolness and cheer.
I bring the rain through a mist of grey.
I herald peace of a sunlit day.
My shadow dips over the primrose flower.
(Soft as velvet its petals are.)
I fold the plume of the lupine's blue.
I hide the cactus from moon and star.
Oh, I am a cloud that anchored lies
Within the depths of the desert skies.

SUNRISE

By LELIA WRIGHT BOLDT
Niland, California

Feeble words cannot describe
The rising of the morning sun
In desert skies;
The blending of the fiery gold
Makes lace against the blue,
Which vies with cornflowers
That years ago I knew.
While little puffs of pure cerise
All marching in a row,
Seem hitched to streamers from
the sun,
With silver mist aglow.

One would hardly expect the grim desert to be a happy hunting ground for anything as small and delicate as a hummingbird, and yet 15 or 16 species of hummers come to the Southwest for breeding or as migrants or visitors from across the border. Despite its shy and graceful manner, the hummingbird is a rugged individualist—as you will learn from this intimate story of the bird and its habits, written by a man who has studied them for many years.

Winged Visitors of the Desert

By FRANK BENE

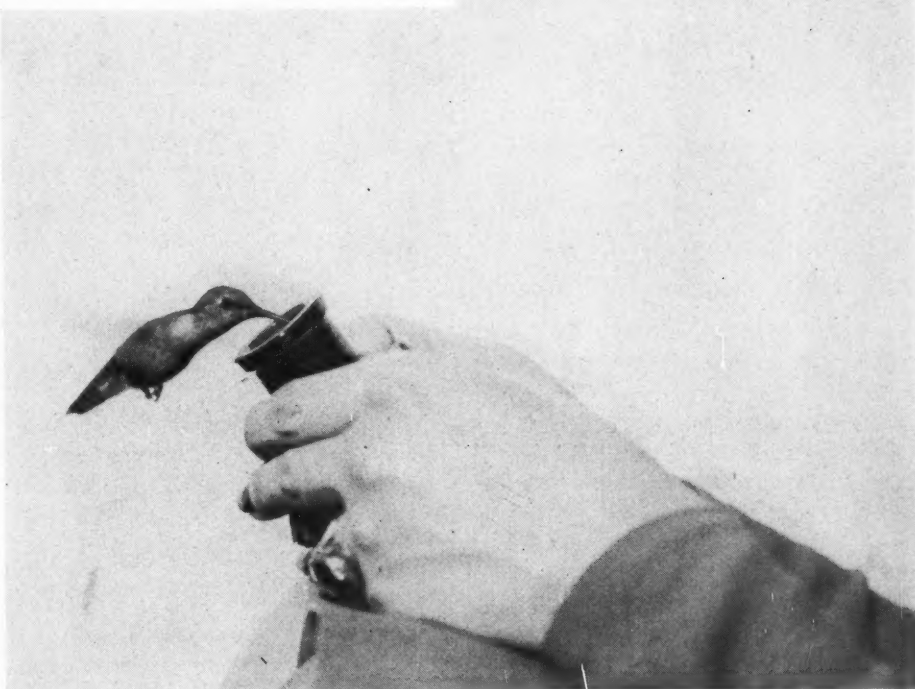
A STACCATO snort, like that emitted by one rudely awakened from a snoring sleep, broke into the monotonous gurgling of the canyon stream, here in the Huachuca mountains of southern Arizona. It signaled the approach of the male Rivoli, one of the two largest hummingbirds visiting the Southwest. As was his habit, he came to feed from the long-spurred columbine that lined the canyon brook. Each time he came I attempted to take his portrait poised before a columbine while sucking its hidden sweets. But the snap of the Graflex would send him darting off like an arrow from a bow.

Of the eight species of hummingbirds that frequent the canyons of the Huachucas, none, save perhaps the broad-bill, is so strikingly handsome as the male Rivoli. His emerald green gorget or throat patch, deep purple cap, and moss green upperparts each flash in turn according to the angle light strikes the iridescent parts.

The Rivoli is almost as long as the Arizona blue-throat, who shared with him the profusion of columbine along the brook. Both species measure five to five and one-half inches, almost twice as long as the smallest visitor, the calliope.

No less striking in plumage is the broad-bill, about three-fourths of an inch shorter than the Rivoli. It has a peacock blue gorget that changes hue and is the only United States hummer whose bill is not black, but carmine, a more pronounced mark of identification than the bill by which it is named.

Little is known of this bird's visiting status, except that occasionally he is found in southern Arizona mountains. I failed to see it in the Huachucas in April of 1940 and in May of 1941, but in August of



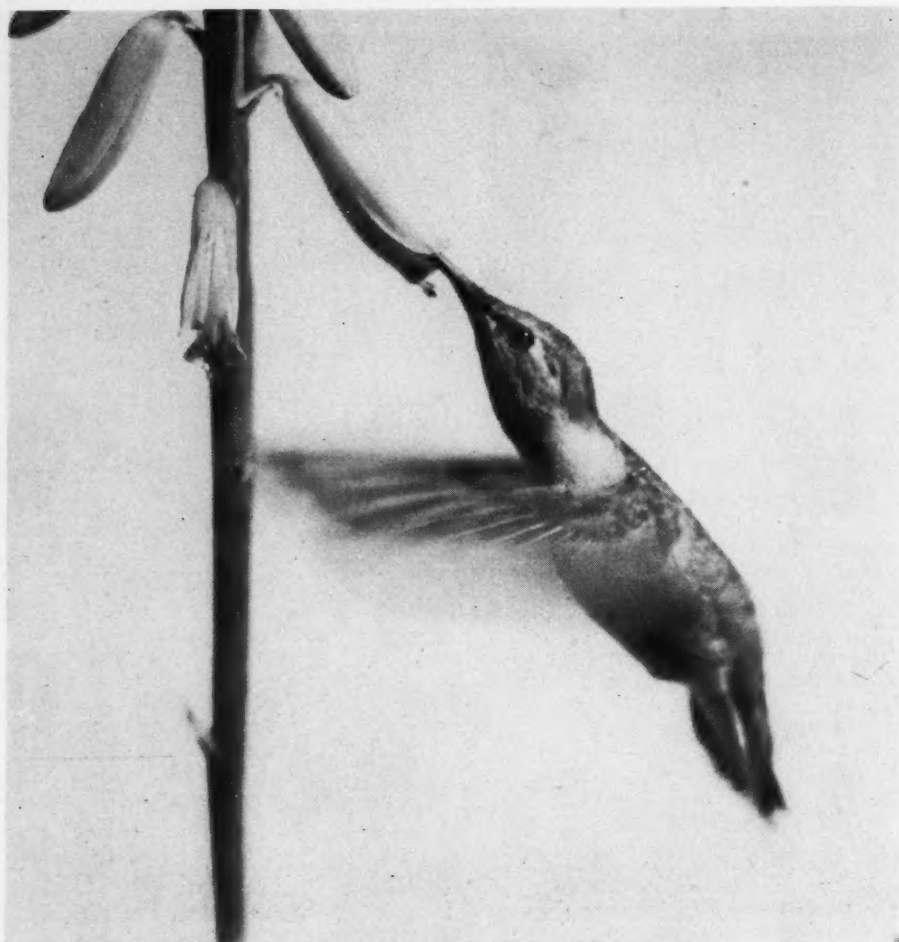
Hummingbirds will not stand close confinement, but they may become quite friendly when a bottle of syrup is the reward. This is a black-chinned hummer.

1940 I found one, unaccompanied by a female, feeding from the flowers of a yellow milkweed of which it was very fond, but which rufous, Costa, black-chinned, Rivoli, and blue-throated hummers conspicuously ignored.

These together with the white-eared of southern Arizona and the Texas birds—Rieffer, buff-bellied, Lucifer, and Texas variety of the blue-throated—are the rarest of our Southwestern hummers. They are but a few of the prolific family of hummingbirds, comprising some 600 species found nowhere except in the Americas and their islands. Mostly tropical, they abound in the region of the equa-

tor, their numbers diminishing as they recede from the equatorial line. Northward their distribution thins out to 13 species that breed regularly in the United States. Here the greatest concentration of species occurs in the Southwest where 15 or 16 kinds visit as regular breeders, migrants, or strays from over the Mexican border.

The typical, sun-loving hummer of the desert Southwest is the Costa, who like the black-chinned, may be found nesting early in spring in irrigated gardens and orchards of the Lower Sonoran zone. Later, when most flowers of the desert and garden go out of bloom and the temperature rises above the century point, these



Another picture of the female black-chinned hummer probing the blossom of a succulent introduced from South Africa.

birds move to cooler climes where flowers come into bloom. In the Salt River valley of central Arizona the black-chinned adults depart in June, leaving behind them their fledglings. Rufous, broad-bill, and Costa hummers I've seen in August in the Huachucas where three months earlier they were absent. This phenomenon is characteristic of hummers that raise their first brood at the low levels in the Southwest and accounts for the sudden disappearance of a species from a locality where a few months earlier they were numerous.

These feathered visitors to the United States winter in Central America and in spring and summer some species breed as far north as Canada. Anna hummers may be found wintering in Southern California. Individuals of this species and of Allen hummers sometimes stray into Southern Arizona from California. In spring the rufous and calliope are numerous in the orange orchards of Southern California, en route to their breeding grounds to the north, the rufous traveling as far as 61 degrees latitude in Alaska. Rufous, calliope, and ruby-throated are found breeding in the Canadian zone of

spruce, fir, and aspen. The broad-tail is another hardy Canadian zone breeder, rearing her brood high in the Rockies where the warmth of the summer lingers for so brief a period that the young of belated mothers may succumb to the rapidly advancing cold.

As a family the hummingbirds are easily distinguished from other birds. Their long bills, small size, their peculiar affinity for flowers, the characteristic humming sound which gives them their family name immediately set them apart from other birds. However, these very traits often lead the casual observer to mistake them for the sphinx—or hummingbird-moth, especially at nightfall when the moths come out to feed.

With the exception of the big three—blue-throated, Rivoli, and broad-billed—hummers of the United States are the shortest and lightest of North American birds. The average hummer the size of a black-chinned, weighs about three grams, about as much as a penny. A three-cent stamp is sufficient to send the equivalent of 10 hummers by weight in first class mail to any part of the United States.

It would be difficult to find a more skillful avian pilot than the hummer; certainly none can outclass it in maneuverability at close quarters. Darting from flower to flower, the hummer extricates itself from a maze of paths, flying backward or forward, upward or downward, and sideward with precision and ease, on wings that beat from 55 to 75 times a second. In straight flight this expert pilot shoots toward its favorite perch, surely headed for a disastrous crash, but the next moment it stops dead and lands daintily. And when he decides to take off, a pair of thin long-bladed powerful wings catapult him from his perch, as though shot from a rocket.

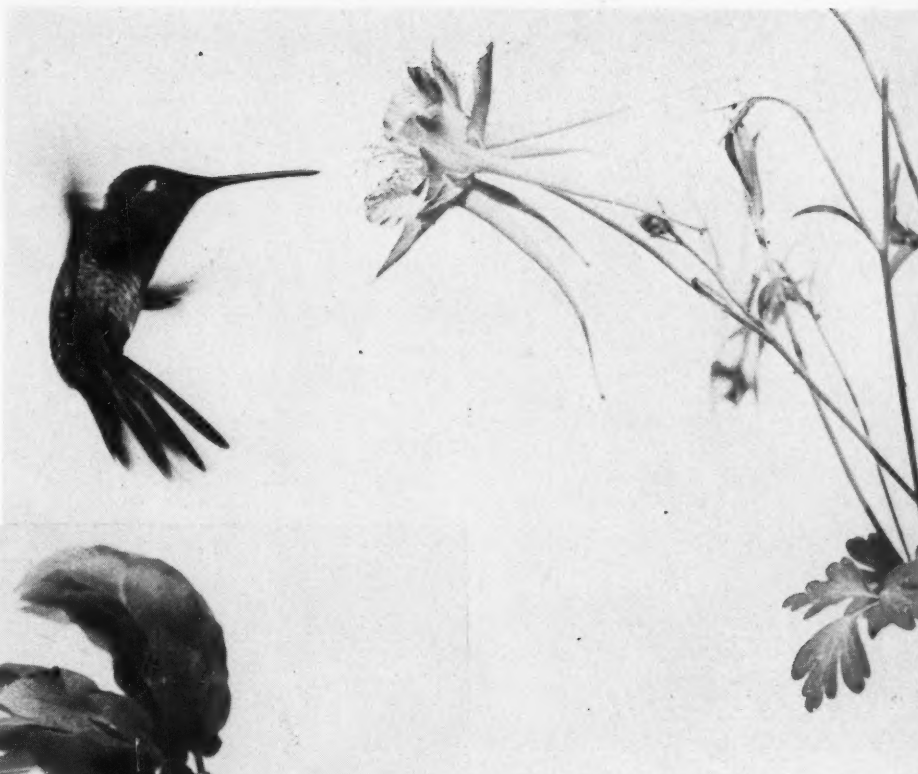
Strongly individualistic, these feathered sprites form loose pairs and maintain isolated territories upon their arrival on the breeding grounds. Soon after her arrival from winter quarters, the female selects her nest site in a female locality and guards it against poaching hummers with all the pugnacity at her command. The male stakes out his claim in a neighboring locality which he defends with the same emotional vigor as does his mate. Mating is usually consummated on a "lek" or courting ground, located in close proximity to the territories of the sexes. Initiative in pairing may be made by either sex, though judging by the frequency with which females visit the lek, at least during the early stage of courtship, I am inclined to believe that the female does the most "drumming."

The courtship display of the black-chinned illustrates the sort of ardor characteristic of the male members of this hot-blooded clan. The female's arrival on the lek is the signal for the prospective male mate to break into a series of pendulum swings, three to eight feet in length, close to the female quietly settled on a low perch. As he swings from side to side his feathers emit a sound like that produced by a bow being sawed across the strings of a cello. Then, rising to 50 to 100 feet, the male swoops down in a breathtaking dive that carries him upward at the other side of the V-like arc. At the lowest point of this whirlwind dive a shrill whistling is heard, caused by the spreading of the tail feathers. It is incredible so much noise can come from so puny a bird. At the pinnacle of the arc the wooer pauses in a vertical posture long enough to show off his flashing gorget to full advantage. Following a half dozen such dives he drops into the same sort of pendulum swing that opened his nuptial display.

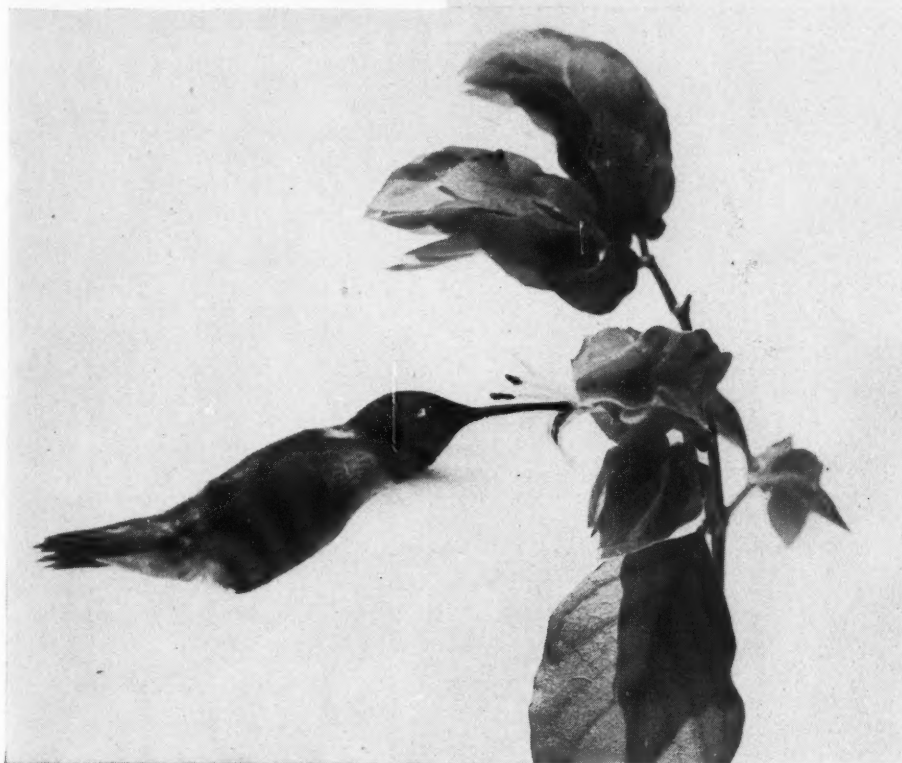
As suddenly as it began so suddenly this mating blitzkrieg ends. It is now up to the female to accept or reject his advances. If she accepts him, the female

makes known her acceptance by remaining on her perch.

Hummingbirds have a curious predilection for nesting in odd places. A black-chinned I know built her nest on the remnants of what appeared like four old ones attached to a piece of rope, underneath the porch ceiling of a house located two blocks from the state capitol in Phoenix. F. C. Williard found nesting in Ramsay canyon in the Huachucas a blue-throated who persistently built her nest on the crook of the handle of an old lard pail suspended from a hook. Thirty years later I found a blue-throated that had attached its nest to a joist underneath the floor of a veranda that bridged the canyon stream. I suspect the two nails to which the nest was secured might have been the same



This male Rivoli is shown retreating from a yellow Columbine in the Huachuca mountains as he hears the click of the camera.



Male black-chinned hummer feeding from a shrimp plant, a garden hybrid of the hummingbird flower which grows wild on the desert.

ones on which the lard pail had been hung at one time.

The nest of a small hummer is about the size of a golf ball with a section sliced off. It is just large enough to accommodate two nestlings when fully grown. A master builder, mother hummer packs, molds and trowels the nest material with feet, breast, and bill, respectively, using for the interior downy material like the pappus of seeds and feathers. The exterior is stuccoed with tiny leaves or moss. These are held together and secured to a slender, usually pendent, twig by means of silk stolen from the homes of unwary spiders.

Two white eggs, the size of a common bean, are laid by the hummer. A fortnight of devoted incubation rewards mother hummer with chicks that looks like a couple of bugs. But their growth is phenomenal, for by the twelfth day they have quadrupled in size. By the end of the third week they leave the nest, and four weeks from the time of hatching they are ready for an independent existence.

Hummers of the United States are as fond of insect meats as of sweets. At twilight when the air teems with gnats, the hummer snatches them between feedings from floral sweets. An expert flycatcher, this feathered mite is as adept in catching its aerial game as it is in weaving about flowers in search of nectar. A zigzag flight in pursuit of the winged insect, then the catch, and down the bird's crop goes the tiny speck which a moment before danced

about in exuberant innocence. Tiny beetles and spiders are also consumed and these are gleaned from vines, shrubs and trees.

Where plants are sprayed with poison to rid them of insect infestation there is the danger of exposing hummingbirds and other insect-feeding birds to the toxic sprays. I have seen two male black-chinned hummers fall victims to such poison because they happened to feed on poisoned orange blossoms in the neighborhood.

Once it becomes attracted to syrup or honey feeders hidden in beds of flowers, the hummer becomes quite tame; but it can not stand confinement in a cage. It is apt to pine away, in tragic contrast to the tireless vigor it displays in its natural habitat.

Among garden flowers most attractive to hummers are those that have large, tubular corollas or spurs. Some of these are columbine, honeysuckle, nasturtium, shrimp plant (*Belperone guttata*), pentstemon, petunia, lantana, butterfly bush (*Buddleia*), jasmine, larkspur, tree tobacco (*Nicotiana glauca*), fuchsia, trumpet-creeper (*Tecoma*), and garden balsam (*Impatiens*). Double varieties of these flowers are usually worthless to these birds because the excess petals tend to hide the nectary. Also, exceedingly irregular flowers like the sweet pea and snapdragon have nectaries inaccessible to all but tiny insects.



R. A. Dean went to Hamilton in the early days as a school master. The school finally closed for lack of pupils, but Dean remained to dig for silver in the hills. He believes the old camp will come back sooner or later.

EARLY in 1860 when Al Leathers was a blacksmith for one of the mining companies operating in the vicinity of Austin, Nevada, he woke one night to find Indian Jim in the kitchen of his shanty gulping the last mouthful of a pot of boiled beans. The Indian might have stolen anything else and not have been so harshly treated. As it was, he suddenly found himself outside the shanty, bruised of body and his feelings hurt.

Indian Jim returned a few days later with a peace offering—a chunk of silver ore. Leathers accepted the offering, melted the silver, hammered it into a good-luck charm and wore it on a string about his neck.

Years passed. Then one day Leathers mentioned the incident to a man named Murphy, who had more imagination than Al. They went in search of the Indian. Finally located, he was induced to show them where he had found the piece of silver.

It was then January, 1868. The high Nevada plateaus and mountains were swept by wintry blasts and snow was piled deep everywhere. The Indian led them to a round-topped peak that reared its snow-capped summit high into the brittle blue sky.

The party floundered through the snow drifts up the steep mountainside. Reaching the top, they blinked unbelievably—everywhere they looked outcroppings of rock poked through the snow gleaming with rich veins of silver.

Indian Jim had led them to one of the greatest silver bonanzas in the history of western mining. It was a treasure hill.

Word soon leaked out. At first the mining fraternity received

Silver ore that yielded \$27,000 to the ton; \$3,200,000 from a pit 70 by 40 feet and only 28 feet deep; a solid horn of silver that weighed 40 tons—these are the tales that brought 20,000 fortune-hunters to the Treasure Hill bonanza in Nevada in the days following the Civil war. But the silver pinched out, and today only two old-timers remain in the ghost towns of Hamilton and Treasure City.

Bonanza on Treasure Hill

By G. DALE HAMILTON

Photographs by Ernest C. Peterson

the news with reservations—too many false alarms had sent them off on wild stampedes. These reports were too exaggerated. Miners were skeptical. However, mining men cannot resist the cry of "New Bonanza!" Soon they were flocking across the desert wastes of Nevada, like a tidal wave, to the new strike on Treasure hill.

It is said that 20,000 men and women rolled up their packs and struck out across the desolate sand flats and bleak mountain ranges, bound for Treasure hill. Like a colony of ants on the move, 6,000 of them crawled up that inhospitable mountain to live and mushroom into Treasure City, at an altitude of 9,000 feet above sea level.

More than 10,000 others preferred to live at the base of the mountain, and there in the grey sagebrush they founded the city of Hamilton, which was to become the county seat of newly created White county.

Both camps flourished in typical boom-camp fashion, but inevitably followed the pattern of western boom mining camps around the circle to ghost town oblivion.

Exploring and photographing ghost towns is a hobby Ernest Peterson and I have long enjoyed. When we heard about the old camps at Hamilton and Treasure City we dug into the records, and what we found was so interesting we decided we must go there.

Leaving San Francisco on a weekend we took the route through Donner pass and across the fascinating desert country to central Nevada. Between Eureka and Ely we came to a lone marker which read "HAMILTON." It pointed south along a dusty road that fingered its way toward a range of ragged mountains.

We left the pavement and jolted over 11 miles of desert road that led into a gap in the mountains and up a rocky canyon. A steep climb brought us onto a high plateau bristling with scrub sage. In the distance a round-topped mountain grew out of the sage-covered plateau like a hump on a camel's back.

Sprawled at the base of the mountain dozed the ramshackle buildings of Hamilton, like weary exhausted animals drooping under the merciless glare and heat of the sun.

Roofless dugouts and forlorn shacks gaped at us from the sage as we drove down the dusty road. Some buildings had been reduced to cairn-like heaps of stones. Shanties, scraped to the



bones by the savage elements, leaned and sagged dejectedly, the wind washing through their exposed ribs.

We continued along the road to the abandoned mines and the old camp of Treasure City. We crested the rim of the western slope and before us lay the remains of the city. Except for a few tottering fragments, the buildings have been pulverized into mounds of yellowish-brown stones, entirely uninhabitable.

Although the old stone bank is roofless and gutted, it is the best preserved building on the slope. The large black iron vault is securely entombed in the thick rock wall, its broad door swung wide open.

Down the line is a dilapidated hoist perched astride one of the mine shafts. We pushed through the scrub growth and clambered over dumps and old equipment to peer into the dark throat of the shaft that drops straight into the mountainside.

Leathers and Murphy, with other original owners, sold their claims to big-moneyed interests at a fraction of what the properties soon proved to be worth. Three of the mines were to become world-famous. They were the Eberhardt, the Defiance, and the Hidden Treasure. The rich deposits were found in pure chloride layers separated only by layers of limestone and bounded by walls like a vault. The miners merely pried the silver loose from the gravel in sheets and slabs. The mining world was amazed at its concentration.

For instance, \$3,200,000 worth was dug from the Eberhardt from an opening 70 by 40 feet, at no point more than 28 feet below the surface. Thirty-two hundred tons of the bonanza milled \$1,000 a ton.

Ore from the Defiance milled as high as \$27,000 a ton. One day's production was worth \$40,000, with \$75,000 more uncovered and in sight. No wonder the miners were wildly excited.

In one of the tunnels of the Hidden Treasure was uncovered a solid horn of silver weighing more than 40 tons, said to be the largest mass of silver ever found.

Exploitation of this fabulous silver cache progressed with thoughtless haste, but not without having to overcome two serious problems—lack of lumber and water. In this isolated desert region these worries weighed heavily. Eventually, lumber requirements were partly supplied by 12 sawmills which

moved in and denuded the canyons of their scanty growth of piñon.

Because of the scarcity of materials, and with all interest centered in mining, no one took time to build himself even a shack the first year. Too busy to build houses, the miners lived in caves, huts, dugouts and some in tents. They suffered from the cold and exposure on that hostile mountain top, open to the raw elements. The first winter an epidemic of smallpox swept through the miserable, shivering camp claiming many lives.

However, it is said that eventually every canyon of that desolate mountain had its sides adorned with miners' cabins hanging like bird cages from its rocky sides.

But they needed water. To run the mines and support a population of near 20,000 required a large and constant supply. Exploration revealed Illipah Springs three miles down a steep, rocky canyon. A waterworks was built to pump the water to a large stone reservoir at the head of the canyon. From there it was distributed to the two camps through 12 miles of 12-inch pipe. This installation cost more than \$500,000, and today nothing remains but the stone reservoir.

In spite of their waterworks and the efforts of the volunteer fire department, Hamilton was laid low by a great fire before the city was out of its infancy. Early one June morning in 1873, a small fire started in the back of a cigar store. Whipped by the wind, it raced through other buildings. The firemen were powerless to halt the conflagration—strangely there was no water pressure. The sleeping inhabitants saved only their night-shirts. When the fire burned itself out, all but two buildings were destroyed.

Investigation revealed that the owner of the cigar store had turned off the water pressure to hamper the fire department, then set fire to his store. He expected to get the insurance, instead he got seven years in the penitentiary, and Hamilton suffered a loss of more than \$600,000.

But money was still plentiful and the city was mostly rebuilt. The mines were incredibly profitable. By the end of the second year they were producing over \$500,000 monthly, and the vein was seemingly inexhaustible.

Exploitation went on with great haste and much waste, until the middle 1880s when the silver bubble burst in their faces



with the effect of a bombshell. The bottom of the vein was reached with unexpected suddenness. Consternation gripped everyone—miners and owners alike. It couldn't be. They had somehow expected the ledge to go down and down, perhaps to China.

But the ledge was neither wide nor deep. At approximately 100 feet it ended abruptly. The bottom of the vault-like shafts had been reached and it was like scooping up the last shovelful of grain out of an empty bin. That was the end of the great bonanza.

In the late 1880s the mines began to close and the exodus of miners was a natural consequence. The flight was as rapid as the original rush. The two camps were doomed.

Other interests took over the properties and spent fortunes vainly seeking the lost treasure. It was the familiar story—the vein was merely lost and every prospector from desert rat to mining magnate hoped to be the one to rediscover it.

An English company spent a fortune sinking a 1400-foot shaft into the heart of the mountain with over a mile of tun-

Old Withington hotel still stands at Hamilton, the two-story stone building. Treasure hill is in the background. There were still patches of snow when this picture was taken Memorial day.

nelling. Even now, in summertime, flivver-prospectors come from distant places to dig and scratch and search for the lost vein.

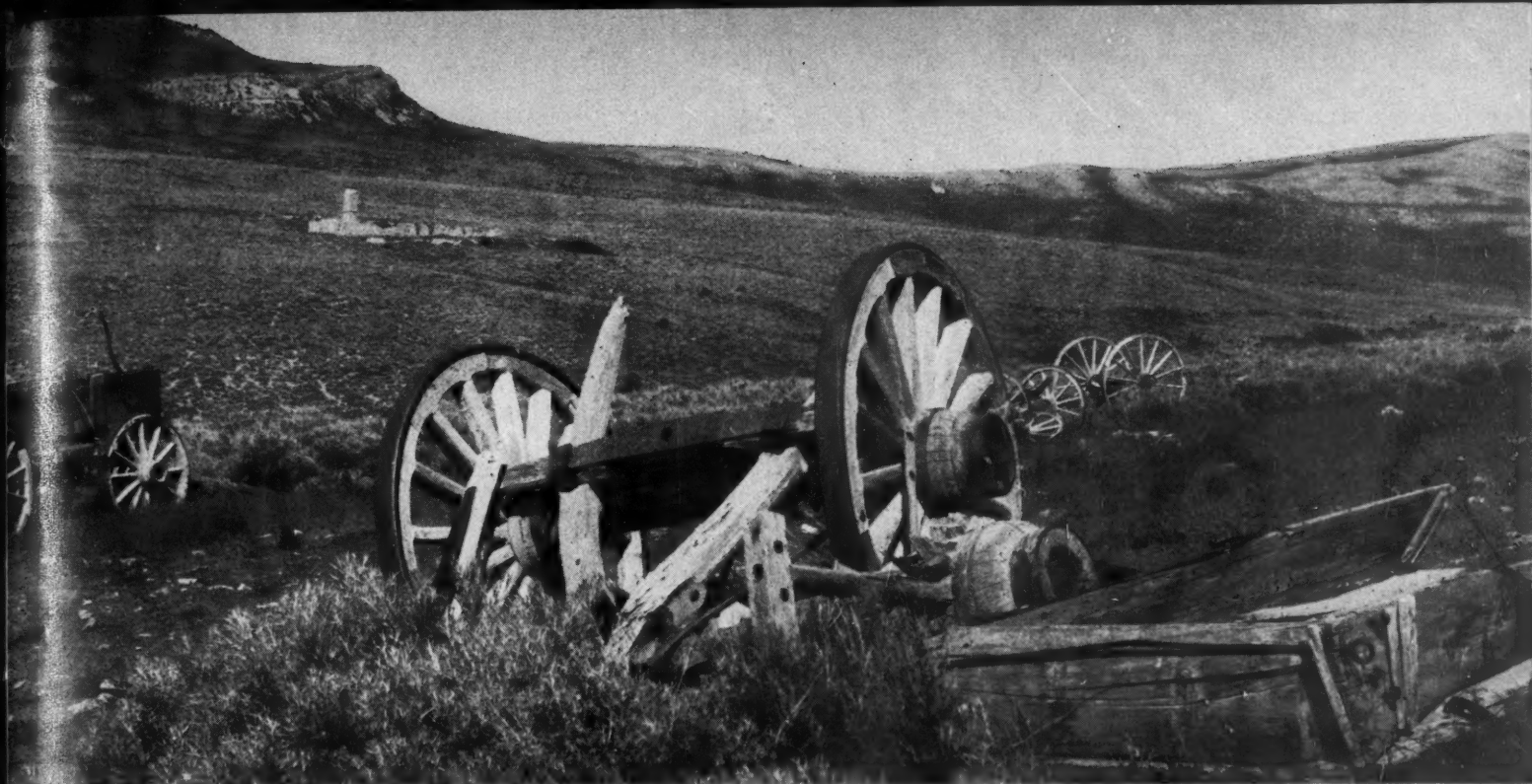
Today Hamilton is a ghost camp of 25 or 30 buildings—some in quite good repair considering their long neglect. One of the two buildings that escaped the big fire now dominates the center of the old camp. It is the Withington hotel and store built in 1869 of red brick and stone blocks. A \$50,000 two-story court house and jail and a Masonic lodge building have disappeared.

Buildings made of uncut rock have tumbled down more rapidly than wooden structures. But the latter are ramshackles. The wind bangs and clatters the loose hanging boards and shingles. Of these, the old butcher shop and the Mathewson residence are the most conspicuous.

The old ore mill and furnace have not fared well. The stone remnants of these old ruins rise from the grey sage and loom

*Ten thousand people once lived here. Hamilton, Nevada.
The winding road leads to Treasure City.*





In the sagebrush at the edge of Hamilton is the graveyard of freight wagons abandoned more than 50 years ago. The ruins of the furnace and ore mill are on the slope in the background.

in sharp jagged outline against the background of clear blue sky and cottony clouds.

Hamilton is not entirely deserted. Two old-timers have steadfastly refused to leave. One is a Mrs. Shields. She was there in the 1870s. For more than half a century she has waited in patient loneliness in the belief that the bonanza will be found again.

The other veteran is R. A. Dean. He has been in Hamilton only 34 years, since 1907 when he came as school master. But the pupils became fewer and fewer. Eventually, with only the empty room and the vacant seats to stare back at him, he stepped out into the bright desert sunlight, closed the door behind him and turned his attention to prospecting and hard-rock mining. At 76 he is still at it.

Being an educated man, Dean has gone about his prospecting in a scientific manner. Along with others, he is obsessed with the theory that the silver ledge was shifted in a fault during a great cataclysmic upheaval when the mountains were formed.

Grinning, he will tell you, "I'm on the right hunch to find it." With a glint in his eye, he continues, saying, "It's just behind the next rock ledge."

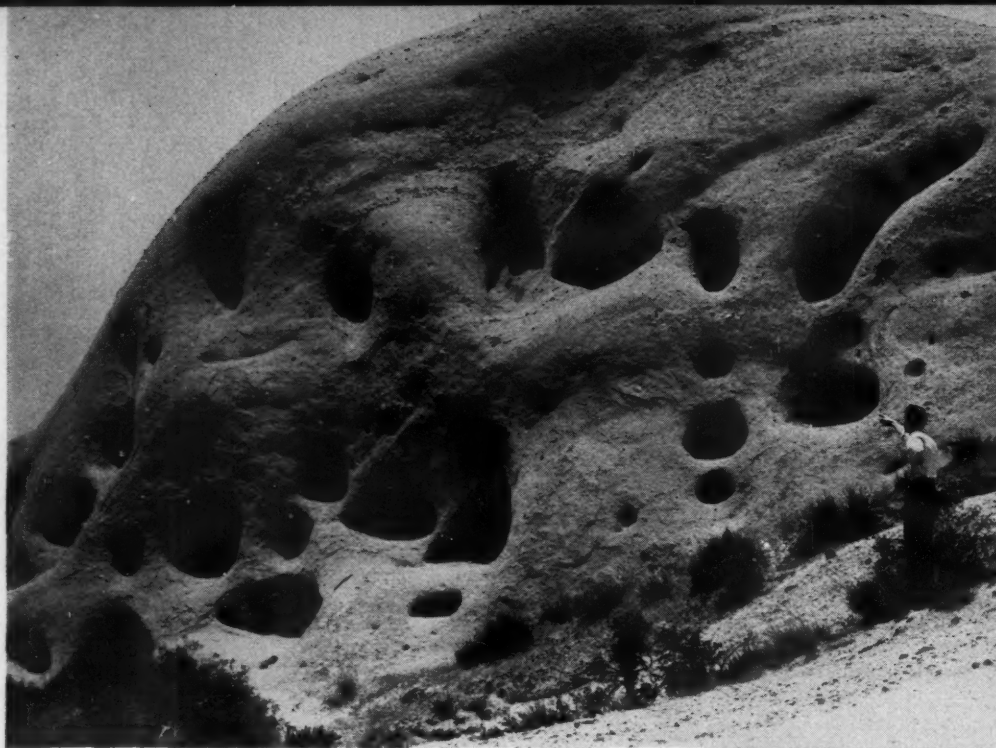
Both of these old timers have unlimited faith in the rediscovery of the lost treasure. To them it is not in the twilight of evening they wait, but rather the twilight of morning; waiting for the sun to rise again over their silent and deserted city. Waiting for a sun that will breathe life and action and prosperity back into the gaunt skeletons of the old camp.

After more than a quarter century of isolation and solitude, Ernest and I wonder how they would survive the noise and confusion plus all the trappings of a modern 1941 boom camp. But they seem to have acquired the patience and endurance typical of the desert. They have bridged the span between the hectic past and today.

These old camps all hold some peculiar charm not found in other ghost towns. In every camp, we have found something of individual quality to set it apart. But Ernest and I agree that no others have the fascination of the ghost towns of Hamilton and Treasure City.

Treasure City on the western slope of Treasure Hill, almost 9,000 feet above sea level.





"Bell cavern" is in the upper right center, "Hopi ladder" next on the right, and then the "flying fish."

To thousands of motorists who speed along Highway 66 each day, the low sandstone buttes near the summit of El Cajon pass are merely more desert rocks. But Robert Schulz was attracted to them by the strange patterns brought into relief by the late afternoon shadows. He found them carved with erosion caves—and when the wind was right—moaning a weird lullaby that reminded him of the chanting of Indian tribesmen. This travelog will be of special interest to Southern California motorists who do not care to venture far off the paved highways.

Chanting Rocks of El Cajon

By ROBERT J. SCHULZ

ON THE edge of the Mojave desert, where the Sierra Madre mountains drop down to the level of the Joshua tree and juniper, is a low pass that since the beginning of Southwestern history has been the gateway between the Southern California coastal area and the vast arid expanse of the Mojave.

This is El Cajon pass, and it is near its summit that I found the "Chanting Rocks."

Imagine a series of great tilted buttes of sandstone pitted with innumerable caverns of every conceivable size and shape, varying in depth from a few inches to several feet. They are all over the faces of the buttes, punched helter-skelter as if some



It was from this sandstone butte, punctured with erosion caves, that most of the "music" came.

prehistoric giant had been prodding about with neither plan nor reason.

My first visit to these rocks was about a year ago. Returning from the desert near Victorville, I was attracted to them by their unusual patterns. The afternoon sun was casting long shadows, giving emphasis to the myriad recesses and creating strange forms of light and darkness.

I sought a side-road that would take me closer, and after two starts that led into heavy sand, found a trail that enabled me to park within a short distance of their base.

A strong wind was blowing, and as I approached the rocks on foot I became aware of a weird whistling chant—like nothing I had ever heard before. It was wild and primitive—and my mind reverted instantly to a story I had read in *Desert Magazine* in November, 1939. The tale was about the Hopi Indians—in which one of the pueblos had been destroyed by its neighbors because its people had become wicked and had forsaken the tribal gods. One of the sins of the wicked tribesmen was that they observed new religious rites by humming and chanting. Because of this their pueblo was called Awatobi, which means "singing houses."

How easy it was to compare these rocks with their many openings to the Hopi pueblos—and the chant of the wind whistling through and around the recesses, to the chant of ancient tribesmen.



The doorway between the "Duet Houses" is not very big, but Bob Schulz finds it possible to wiggle through.

I wanted to explore these rocks, but the sun was low and I left reluctantly, with a determination to return on my next trip to the desert.

Since then I have visited the Singing Rocks many times. The strange caverns have never ceased to be interesting. On every trip I find some strange new formation. It was only natural to give names to the more obvious forms.

In one is a cavern with an almost perfect bell shape.

To the right of this is a long opening slanting downward, with a cavern at the lower end. This is the "flying fish." Between it and the bell-shaped cave is a series of openings which have attracted to themselves the title, "Hopi ladder."

Up the arroyo a tenth of a mile the Santa Fe tracks pass through this area. Just beyond here one huge rock rises in the form of a ship's bow, being pierced by a cavern in its exact center. At the head of a short steep canyon separating this rock from another are two caves with a circular opening or hallway between them. This is the "duet house."

An imaginative mind can find most everything here. At one place nature has carved a huge face, with bulbous nose and two small caverns for eyes. From different angles the face takes different forms. From one spot it is a hippopotamus, from another a dog's head, and from a direct side view an Indian chief with much headgear. One thing only is definite—it is from all angles a face, of something or other. One rounded pinnacle could be nothing else except a "sore thumb."

Nature quite evidently has carved all these strange forms by erosion. But oddly enough, only one sector of the sawtooth dike which protrudes from the desert floor for a distance of half a mile is pitted with caverns. Beyond that the sandstone is rugged and spectacular, but without caves.

Vegetation of the upper Sonoran zone grows luxuriantly in this area and the animal life is typical of the desert—lizards, rabbits, and various species of rodents. I have never seen a snake in this section.

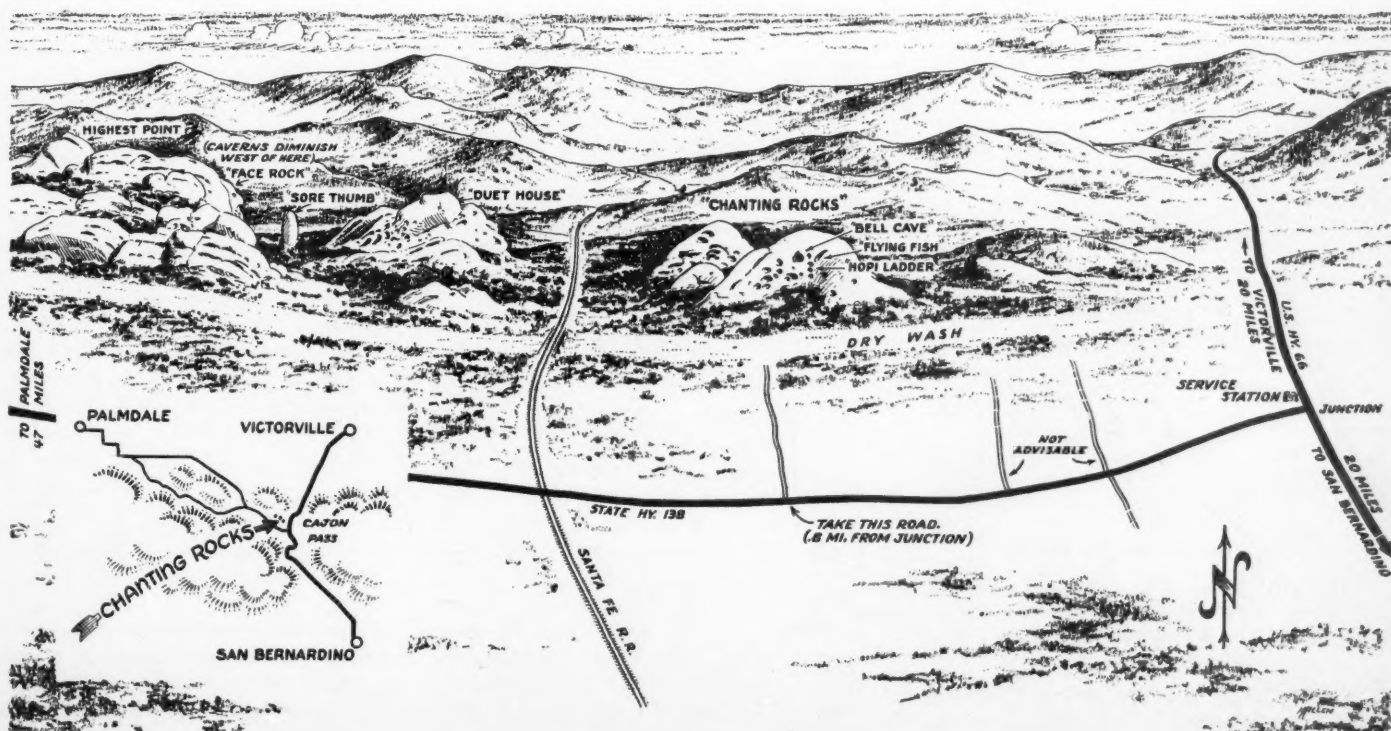
There is historic interest in the place where Chanting Rocks protrude their sawtooth slabs above the floor of the desert. A well worn trail came up and over the El Cajon mountain saddle long before the white men came to America. This was one of the portals through which coastal and desert Indians carried on an intermittent traffic in seashells and obsidian and salt in prehistoric days.

At later periods the padres, the trappers and mountain men—and eventually the gold seekers taking the southern route to avoid the snow barriers in the Sierras farther north, followed this route.

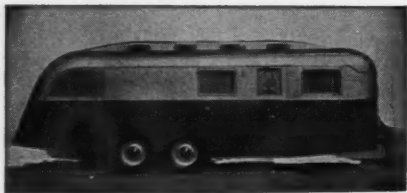
No doubt more than one of these pioneers of an earlier period turned aside to find shelter in the coves of the Chanting Rocks, and perhaps were stirred to superstitious awe by the strange music that came from some invisible source.

These rocks today are an ideal goal for a desert trip. They have a fantastic beauty of their own—and if the wind is right they will furnish strange music such as will never come over the radio.

The desert here is clean and untainted. Nature created it that way, and while visitors have no doubt picnicked at this spot they were the kind of folks who leave no tell-tale debris where they camp. May Singing Rocks always be a rendezvous for that kind of humans!



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Desert Place Names

Magazine is indebted to the research work done by the late Will C. Barnes, author of "Arizona Place Names;" to Betty Toulouse of New Mexico, Hugh F. O'Neil of Utah, and Marie Lomas for Nevada.

For the historical data contained in this department the Desert

ARIZONA

SHOWLOW

Navajo county

Small Mormon farming settlement on headwaters of Silver creek, near base of Mogollon mountains. Before the Saints located in that part of Arizona, non-Mormon ranchmen had established themselves on the creek, some of whom were addicted to gambling. On one occasion two of them were playing for quite a stake in the game of seven up, or high low. In the course of the play one of the men said "Show low, and the game is yours." He did show low and won; hence the name of the creek and subsequently the name of the settlement, which was organized as a Ward May 13, 1884.

THATCHER

Graham county

Mormon settlement on the Gila river, founded in 1881, organized as a Ward in 1883 and named in honor of the late Apostle Moses Thatcher. In early days became headquarters of a stage line. Is headquarters of St. Joseph's Stake of Zion.

CALIFORNIA

BOX CANYON

San Diego county

Narrow, rocky canyon leading from Mason valley into San Felipe valley, about 6.5 miles northwest of Vallecito. Here in January, 1847, according to John Davidson, the Mormon battalion cut a way through for the first wagons into southern California, using a "few axes, a small crowbar and a spade or two" (their road tools having been lost en route), and a few days later, January 29, at San Diego, finished the longest march of infantry in the history of the world, having started the previous spring from Council Bluffs, Iowa. The remnant of the army of the west under Gen. Stephen W. Kearny, followed this trail some weeks before it was widened by the Mormons.

NEVADA

TONOPAH

Nye county

From Indian word, given variously as "little water," "water brush," "greasewood water," "greasewood spring." Silver accidentally discovered here in 1900 by Jim Butler, as he was hunting for his burros a short distance from his overnight camp. It was some time before he had his samples assayed, and even upon their proving very rich it was only at the insistence of his wife and a friend that he went back and staked his claim. (Detailed account in Federal Writers' Nevada State guide.)

NEW MEXICO

WAGON MOUND

Mora county

Trading center and wool- and stock-shipping point, built at the foot of a geological formation resembling a prairie schooner. An important point on the old Santa Fe Trail, settled shortly after the route was laid out in 1821. At one time the location of Mexican frontier customs house before New Mexico was made a part of United States territorial possessions. Has had exciting Indian history. (See Federal Writers' New Mexico State Guide.)

BELEN

Valencia county

Originally called *Nuestra Señora de Belém* (patron saint to whom the church was dedicated). Founded about 1766 by Spanish authorities as refuge for *Genizaros*, captives ransomed by the Spaniards from the Apache and Comanche Indians and released from slavery. Although destroyed in the Indian Revolt of 1680, some settlement continued. Has since become Belén through some error in spelling. Now a quiet Mexican village on the bank of the Rio Grande.

UTAH

DYER

Uintah county

Ghost town in Uinta mountains, supported by copper mining between 1887 and 1900. Named for Lewis R. Dyer, who opened up the mines. Although they have not been operated since 1900, many firmly believe that copper in paying quantities is still to be found there.

ENSIGN PEAK

Salt Lake county

Located on outskirts of Salt Lake City in Wasatch range. Soon after arrival of Mormon pioneers, July 26, 1847, Brigham Young, Wilford Woodruff and 10 others while exploring in the vicinity went to the top of this peak, where Woodruff suggested it would be a good place to raise an ensign. Brigham Young agreed and ordered that it be known as Ensign Peak.

CORINNE

Box Elder county

First called "the Burg on the Bear" because the town was settled on the bank of Bear river. Theories on origin of name: 1. Named for first white child born there, daughter of Maj. Gen. Willington, army officer who assisted settlers against Indians. 2. Named for heroine of a popular novel of 1807, "Corinne of Italy." Was once spoken of as the proposed capital of the state.

THE DESERT MAGAZINE

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THE DESERT MAGAZINE



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OCTOBER, 1941

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SCENIC AND HISTORIC TRIPS — LAKE MEAD, BOULDER DAM, MOUNTAINS — LIBERAL LAWS

OCTOBER, 1941

The Desert TRADING POST

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Mines and Mining . .

Indio, California . . .

If diamond drilling operations reveal 50,000,000 tons of commercial ore in the Iron Chief deposits in Eagle mountains, Riverside county, there is a strong possibility that Southern California may obtain a multi-million dollar steel plant.

Surface exploration many years ago disclosed a huge deposit of iron ore in the Eagle range, but it was not until the defense program brought an urgent need for increased supplies that serious work has been done toward developing of this property.

Recently Charles F. Jackson, chief of the mining division of the U. S. bureau of mines and a group of federal and private mining engineers visited the field and arranged for extensive drilling operations to determine the extent of the high grade ore.

If a plant is established somewhere in Southern California a radical new process for making coke may be used. The Iron Chief property has been generally referred to as the "Harriman claims" as the 804 claims were bought and consolidated by E. H. Harriman in 1908. On a basis of surface showings it has been estimated the claims would provide 1000 tons of ore a day for 100 years.

Las Vegas, Nevada . . .

Much of the 112,000,000 pounds of magnesium to be produced at the proposed \$63,000,000 government-financed processing plant to be erected near this city will go to England to replace supplies formerly received from sources now closed to the British. While complete plans for the huge project have not been confirmed the program already has brought large numbers of engineers and other workers here for preliminary operations. Efforts will be made to erect the plant in record time. This location was selected because of its proximity to large magnesite deposits, and also the availability of cheap power from Boulder dam.

Needles, California . . .

When City Water Superintendent O. A. Cox tested the water at Klinefelter springs for drinking purposes, he found that it carried enough fluorite in solution to be unsafe for drinking. Exploring further to determine the source of the fluorite he found it in sufficient quantity to justify the locating of several claims. Tests are being made to determine whether or not the ore is of commercial value.

Bisbee, Arizona . . .

Notices posted at the big copper mines of the Phelps-Dodge corporation notified 7,500 miners working for the big corporation they would receive pay increases of 50 cents a day September 1. Same action was taken by Miami Copper company, Inspiration Consolidated and the International Smelter. Other companies were said to be considering similar raises. Average pay of a copper worker is \$6.50 a day. White collar workers are said to be scheduled for increases also. This is the second raise within the last year.

Golconda, Nevada . . .

When a horde of millions of crickets descended on the ore-treatment plant of Adelaide-Crown recently, miners engaged in taking out gold ore had to stop operations and declare war on the invaders. The problem was solved by erecting a bug-proof fence around the camp.

Winslow, Arizona . . .

If the demand for strategic metals continues, further effort may be made to locate the huge meteoric mass of nickel and iron which some mining men believe lies buried deep beneath the surface of the ground at Meteor crater near Diablo canyon. Already more than \$500,000 has been spent digging and drilling in an effort to locate the meteor. According to estimates, the mass weighs 10 million tons and would assay seven percent nickel. The fact that so valuable a mass of ore has not attracted the capital of big mining operators for exploration has caused doubt in some quarters as to whether the metallic mass actually exists.

Mesa, Arizona . . .

E. L. Cord interests have leased the Ord mercury mine on Salt creek in Tonto basin according to reports here. A furnace in operation since 1940 has handled 25 tons of ore daily, and produced 70 flasks of quicksilver, according to L. E. Foster, superintendent.

Marysville, Utah . . .

Recommendation was made during August by the OPM that the Reconstruction Finance corporation allocate funds for the erection of a plant near this city to produce alumina from alunite.

The initial construction, providing for handling 100 tons daily, is in the nature of an experimental project to determine the commercial value of the aluminum-bearing clays in this area. The Kalunite corporation which will operate the plant, has been running a small pilot mill handling about a ton a day for some time.

Moab, Utah . . .

To explore the possibilities of magnesium deposits which are said to be among the richest in the country the Utah Magnesium corporation has been formed to operate near Crescent junction in Grand county. The corporation will pump brine from two wells, one of them an old oil drill hole and the other a well to be sunk nearby. Preliminary estimates indicate that the brine runs from 30 to 31 percent mineral salts of which 68 percent is magnesium chloride and 25 percent calcium chloride.

Tucson, Arizona . . .

Arizona has more than 50 deposits of tungsten of more or less value according to a bulletin recently prepared by Eldred D. Wilson, geologist of the Arizona bureau of mines. The bulletin not only deals with the individual deposits, it discusses the various tungsten minerals, wolframites, scheelite, powellite, cuprotungstite and tungstite; uses of the mineral; marketing problems; concentration problems and lists owners of tungsten properties and buyers of the metal. Chief of the Arizona deposits from the standpoint of production is the Boriana in the Hualapai mountains of Mohave county. Six or seven other deposits exist in that county, most of them in various stages of development. Other deposits discussed are one in Yuma county; six in Yavapai county; one in Maricopa county; six in Gila county; five in Pinal county; seven in Pima county; 13 in Cochise county, and three in Santa Cruz county.

HERE AND THERE

... on the Desert

ARIZONA

Aboriginal Church Uncovered . . .

SHOWLOW — Archaeological students and instructors from the University of Arizona unearthed a kiva, or religious chamber 35 feet in diameter on a bluff near here. The kiva was tentatively dated as prior to 600 A. D., but there were no distinguishing features about it to make this certain. However, if the date is right, then the builders belonged to Pueblo II civilization, the first of aboriginal Indians to make these distinctive structures.

Fight for Road Continues . . .

KINGMAN — Local chamber of commerce officials have joined with state highway commissioners and supervisors in an all-out campaign to obtain government funds to construct a first-class highway to the site of Davis dam in Bullshead canyon. Governor Osborn has also thrown his full official weight into the fight. Local residents long have felt that they were deprived of large sums of money when the construction camps for Boulder and Parker dams were located in Nevada and California respectively. Feeling reached such a high pitch a few weeks ago that members of the local 20-30 club were advocating secession from Arizona, and petitioning Nevada to take in Mohave county as part of that state. The heat of the present campaign has melted down the youthful insurrection, and they too are now engaged in the fight to get the government funds for construction of the road to the dam-site.

It Won't Be Pampering Them . . .

YUMA — Six skulls and horns of mountain sheep were brought here in August by Geno Amundson, manager of the three Yuma county federal refuges, as evidence that even the most sure-footed of all animals need protection in the rugged mountains of the Kofa game refuge.

Amundson brought them in to explain why his department is going to the expense of carving out steps in the natural water tanks of the refuge with dynamite and compressed air jack-hammers. He says that the sheep and deer can jump into the tanks where the water is stored, but cannot climb the steep walls to get out. The remains of the six sheep were taken out of one of the tanks, and the skeleton of a deer was also there.

Better Road Into Mexico . . .

NOGALES — Dream of tourists, business men, and authorities from both sides of the Mexican border of a paved highway to Mexico City via Mexico's scenic west coast is to be realized in the not-too-distant future. More than \$50,000 worth of road-building machinery, purchased in U. S., soon will be delivered to Mexican contractors working on the Nogales-Guaymas link. Work has been progressing on this road for many years, but due to its spasmodic nature the damage done by rains and travel between flurries of work has more than offset the construction done. Now continued construction is expected to last until the rebuilding and oiling is completed. Other states of Mexico report that work is progressing rapidly on their respective sections of the highway too.

Await Action in Mexico . . .

BISBEE — Legislation has been passed authorizing President Roosevelt to establish, by proclamation, a Coronado International memorial in the Huachuca mountains west of here on the Mexico-U. S. border. However, establishment of the memorial to the Spanish explorer is conditioned upon Mexico providing a similar area on her side of the border. She has signified her intention to do so.

Dude Ranch Planned . . .

PIERCE'S FERRY — A site near Pierce's Ferry has been selected by M. B. Dudley of Kingman and his New York associates on which to build a million-dollar guest ranch, one of the largest projects of its kind ever undertaken. Dudley stated that the ranch, to be named King Tut, should prove to be one of the West's most popular resorts, as it combines all the attractions of a regular desert ranch with the added features of Lake Mead, Grand Canyon, and the great Joshua tree forest in which it is located. Complete construction plans are to be released this month.



Dear Bill:

Meet me tonight at HOTEL BEALE in Kingman, the ideal overnight stop between Boulder Dam and Grand Canyon. It is Air Conditioned throughout, has a nice cocktail lounge, fountain and coffee shop, and the fellows say it is one of the better places.

Regards,

Jim

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The Old
Landmark

KEYS INDIAN STORE

WICKENBURG
ARIZONA

Sez Hard Rock Shorty of Death Valley

By LON GARRISON



"FUNNY," commented Hard Rock Shorty, "the way this article about minin' through the ice reminded me o' the time I tried minin' in a little pool over in Whiffle Tree Crick canyon."

He opened up the week old copy of the Inferno Empire and referred to an item in the patent insides.

"Says here some bird in Alaska's been minin' by findin' pools that's froze solid in the winter time, diggin' down through the ice and workin' the bottom o' the pool. Now, I ain't seen it done, but I'll bet it'll work. The opposite did.

"Gold pockets, yuh unnerstand is usually in the sand in pools at the bottom o' falls an' riffles, an' one day over here on Whiffle Tree Crick I found a pool that looked good. Good color—sand, an' plenty o' water—in fact too much water. Crick went dry in the spring, but this pool didn't. Was way down in a deep gully where the sun never got to it, an' no way to pump.

"I set down an' figgered a bit—ought to be some way to get that water out o' there. Finally I got me some mercury ore an' carried it over an' scattered it along the top o' the north side o' this gulch. The sun shinin' in hit this ore, melted out the mercury, an' it run down an' silvered the side o' this cliff just like a mirror. Then the sun shinin' on this was reflected down to another face I silvered the same way, an' this focused the sun on the pool. Wasn't more'n a couple days 'til she boiled dry.

"Cloudy days I'd climb down in there an' work, an' was doin' good too but I hadn't figgered on this vein o' coal that was down there.

"This mirror set the coal on fire so I couldn't work, an' I had to shoot the mirror off so the water'd put the fire out, an' that gold's still there."

CALIFORNIA

Wanted—More Kilowatts . . .

NEEDLES—Government officials, worried over mounting evidence that the Southwest faces a critical power shortage, are contemplating building another Colorado river dam in Bridge canyon, northern Mohave county. Acting Bureau of Reclamation Commissioner H. W. Bashore stated in August that the bureau "stands prepared to aid . . . in executing an all-out program which will open to the nation that arsenal of mineral resources which lie beneath the mountains and deserts of the west." This would be the sixth in a string of dams which harness and control the waters of the mighty Colorado. Others are Boulder, Parker, Laguna, Imperial, and the proposed Davis dam.

Desert Boat Races . . .

DATE PALM BEACH—Officials of the Salton Sea Winter Championship Speedboat regatta are making plans for accommodating an entry list of 160 drivers and boats expected to participate in the 3rd annual running of this classic. Salton Sea is recognized as the fastest marine speedway in the world, and the cream of the nation's drivers annually make the trek to the regatta to race for fame and records. Dates for the races: October 25 to 28 inclusive.

"Give Us Peace, Nct Money" . . .

PALM SPRINGS—"We just want to be left alone on our own lands." Thus is summed up the objection of the Agua Caliente Indians, in whose reservation lies the world-famous Palm canyon, to the proposal that they sell 33,000 acres of land belonging to them. A syndicate is reported to have offered a million and a half dollars for the land, on which it intends to build a large hotel and develop beautiful baths in connection with the hot springs located on the reservation. Various syndicates have for 15 years tried to negotiate with the Indians, but always have been stalemated. According to spokesmen for the tribe, a petition of objection signed by 53 Indians old enough to write their names, is to be sent to Albert A. Grorud who represents them in Washington, D. C.

Cavalcade Gets Headquarters . . .

CALEXICO — Authorization for construction of a group of buildings to house the chamber of commerce and Desert Cavalcade was made here in August by the city council. Plans are to build the structures of adobe, reinforced against earthquakes. A stockade will surround the land area of 130x130 feet, with a well and water trough in the center of the courtyard. Desert shrubbery will be used for landscaping. Estimated cost of construction: \$4,000.

Circle Tour Planned . . .

TWENTYNINE PALMS — Superintendent James Cole of Joshua Tree national monument is studying plans for improvements made possible by congress' recent appropriation of \$14,000 for that purpose. Of this amount, \$6,700 has been ear-marked for road improvements, and local residents believe that this will be used to put through a new highway from here to Indio. This route would traverse the monument and enable visitors to make a circle tour of the area. Until now there has been only one improved highway to the town and the picturesque park, forcing motorists to return over the same road they came.

Lost—One Fire Bell . . .

BODIE — County Sheriff Cecil R. Thorington revealed here in August that the historic old fire bell which hung in the fire house had been stolen and hauled out of the county. The bell, a relic of the days when Bodie was a booming mining town, survived the fire which swept the town 10 years ago, destroying the fire house which formerly sported the bell. Anyone having seen the culprits were advised to contact the sheriff.

Ford Man Builds . . .

INDIO — An elaborate \$50,000 rancho complete with swimming pool, stables, and outdoor grill is being constructed east of Garnet for Harry Bennett, personnel director for the Ford Motor Co. Site of the ranch is a high knoll commanding a view of the entire Coachella valley.

Prizes to Amateur Photographers

Each month the Desert Magazine offers cash awards of \$5.00 and \$3.00 for first and second place winners in an amateur photographic contest. The staff also reserves the right to buy any non-winning pictures.

Pictures submitted in the contest are limited to desert subjects, but there is no restriction as to the residence of the photographer. Subjects may include Indian pictures, plant and animal life of the desert, rock formations—in fact everything that belongs essentially to the desert country.

Following are the rules governing the photographic contest:

1—Pictures submitted in the Octo-

ber contest must be received at the Desert Magazine office by October 20.

2—Not more than four prints may be submitted by one person in one month.

3—Winners will be required to furnish either good glossy enlargements or the original negatives if requested.

4—Prints must be in black and white, 3 1/4 x 5 1/2 or larger, and must be on glossy paper.

Pictures will be returned only when stamped envelopes or photo-mailers are enclosed.

For non-prize-winning pictures accepted for publication \$1.00 will be paid for each print.

Winners of the October contest will be announced and the pictures published in the December number of the magazine. Address all entries to:

Contest Editor, Desert Magazine, El Centro, California.

NEVADA

FDR Puts "Bee" on Rustlers . . .

TONOPAH — President Roosevelt on August 19 okayed a bill to halt cattle rustling on western ranges. Senator Pat McCarran, who authored the bill, had twice before submitted similar bills to congress and had them passed, only to be rejected by the President for being too broad in scope. The bill as passed provides a \$50,000 maximum fine and five years imprisonment for persons convicted of transporting stolen cattle between states. No longer will the drama of men descending upon ranches in dead of night, loading cattle on a fast truck, and speeding away across a state line out of reach of local authorities take place.

Blitzkrieg in Comfort . . .

LAS VEGAS—If, as many observers assert, army morale is low, it isn't entirely the fault of army officials. At least not in the case of Camp Sibert at Boulder dam. To make living conditions better for the soldiers there, and at other "hot-spot" army posts, desert coolers are being installed. These coolers consist of a metal cabinet filled with a porous material, like excelsior. The cabinet is attached outside a window, the excelsior dampened by a flow of water, and a fan on the room side of the cooler forces humidified air into the room, reducing the temperature considerably.

Fowl Given Protection . . .

WINNEMUCCA—Thirty-six chukar partridges were planted in the Sheldon game refuge in northern Humboldt and Washoe counties in August. The fowl will be under protection of the refuge patrol and a thorough study of eating, nesting and other hab-

its will be possible. Data collected from this study will help game officials in making future plantings, both of partridges and other fowl.

Dance—and the Sun will Shine . . .

WINNEMUCCA — Chief Winnemucca, medicine man of the Paiute Indians at Pyramid lake, is going to make sure that good weather prevails during the annual inter-tribal fair at Nixon the last weekend of September. He has issued a call to his tribesmen to pray and dance for the next several weekends so the god of good weather will rule the skies during the fair. The old chieftain admonishes the dancers to put their best into these dances, otherwise the weather gods will be displeased and bad weather will prevail. The fair will bring together at Nixon thousands of Indians from Nevada, California, Idaho and Oregon.

New Boom Anticipated . . .

LUNING—This little town has been caught up in the flurry of excitement over the anticipated boom which may come to this area as a result of the proposed development of the neighboring brucite deposits by Basic Magnesium, Inc. The actual deposits lay 30 miles from here, but a large reduction plant may be constructed here for reducing and concentrating the brucite ore before shipping it to the refining plant, under construction at Las Vegas. Twice before in its history Luning has enjoyed short boom periods, always followed by inevitable depression. In 1908-10 during the Rawhide boom it vied with Shurz and Fallon as gateway to the famous camp, and in 1917 leaped into prosperity when the near-by Wall Street copper mine was turning out tons of high-priced ore.

NEW MEXICO

They Shake a Mean Moccasin . . .

GALLUP — Southwest Indians shake a mean moccasin in the opinion of Chiefs Big Kettle and Cornplanter, Iroquois Indians who traveled 1,800 miles to participate in the 20th annual Inter-Tribal Indian ceremonial held here in August. The two chiefs brought two women and two children with them to compete in the ceremonial dances, but failed to best any of the Southwestern tribesmen. Taking defeat good-naturedly, the Iroquois expressed hopes that next year they could return with a larger team, promised to practice up on their footwork.

Cowboys in Dilemma . . .

SANTA FE—Cowboys, dude ranch variety, are wondering whether to call themselves ranch hands or chambermaids. Ruling on a controversy over whether or not dude ranch employees are exempt from state labor laws as are cattle and sheep ranch hands, Assistant Attorney General George Hunker stated that a dude ranch is not enough of a ranch to escape the labor laws. "A dude ranch," he wrote, "constitutes a commercial institution located in the country and which beds, boards, entertains tourists and visitors." Perhaps they should swap their spurs and saddles for bell-hop uniforms.

Raton Pass Abandoned . . .

RATON—Automobiles were first allowed to use the new Railroad canyon route on U. S. 85-87 on August 23. This route takes the place of the old Raton Pass highway. The new road was not completed at that time, but by agreement between New Mexico and Colorado, cars are allowed to pass over it while work is being completed.

Greatest motor oil development so far

No other motor oil, Pennsylvania, Mid-Continent or Western, can equal all the advantages of Thermo-Charged "RPM"

A STANDARD OIL PRODUCT

Thermo-Charged



UNEQUALED
AT ANY PRICE

30¢
a quart

NOW MORE THAN EVER "AMERICA'S PREMIER MOTOR OIL"

Apropos Redman's Progress . . .

DOMINGO — Interesting, and perhaps significant, is news of a cooperative marketing organization set up by Pueblo tribesmen around here to market the best of their craftsmanship and wares. The coop, a non-profit organization, will buy native craft articles and sell them to eastern wholesalers. Profits accruing from transactions will revert to the craftsmen. Significance lies in the fact that many economists and political theorists have asserted that the next step in civilized man's development will be the era of cooperative enterprise, wherein our capitalistic economic system will be more of a cooperative rather than highly competitive system as it is today. Could America's original inhabitants take over leadership in progress?

Healthy? Here's Proof . . .

EMBUDO — Insufficient business was given as the cause for discontinuing the narrow gauge rail line from Santa Fe to Antonito, Colorado, by the Denver and Rio Grande Western Railroad Co., operators of the line. The great quantity of chili peppers and onions hauled out of southern Colorado gave the line its nickname of "Chili line." Side-light on the closing: H. W. Wallace came from the east in 1912 and got a job as station agent here. Believing he was dying of an incurable illness when he came, he started to check off his dying days by putting a rock on a spot near the station each day. When he was transferred from here 22 years later, the rock pile had become a sizeable monument, and stands today as a memorial to the healthy climate of this area.

They Stay Longer . . .

CARLSBAD CAVERNS—Following the war-produced trend to "See America First," 23.3 percent more persons have visited this national park this year than at the same date last year. This increase is greatest of any national park. Mesa Verde ranks second with a 12.5 percent increase, Yellowstone third with 9.5 percent gain, Rocky Mountain park fourth with 8.5 percent gain. AAA automobile club which compiled these figures, further reports that tourists this year are staying longer and seeing more.

UTAH

Predicts New National Sport . . .

SALT LAKE CITY—Alexander C. Grant, down-east adventurer who successfully navigated the treacherous Colorado river in a 60-pound folboat, stated here that in 10 years 10,000 small boats will be running the more gentle rivers of the West. "It is only a matter of time until river boating and rapid shooting will be a popular national sport," he declared. Already proven feasible for folboat navigation by Grant are the Salmon and Middle Fork rivers of Idaho, and Utah's Green river. He hopes eventually to run every fast rapid in the U. S.

Dinosaurs Get Keeper . . .

VERNAL—Harold M. Ratcliff took up duties here early in August as first official custodian of Dinosaur national monument. Formerly district ranger in Rocky mountain national park, Ratcliff is highly capable of assuming the wide range of administrative and protective duties which his new post entails. He has been with the park service 12 years, part of the time as field ranger and the remainder in Washington, D. C., on special assignment with the wildlife section.

Largest Ranch Sold . . .

MONTICELLO—Indian Creek ranch, largest in Utah, was sold in August to Wilkins Livestock company of Denver by J. A. Scrup, owner. \$550,000 was paid by Marion Wilkins, representing the buyers, for grazing rights on the 2,000,000 acres.

Where Water and Power have brought comfort and wealth to Desert people . . .

- Until far-sighted pioneers tapped the great resources of the Colorado river, the Imperial basin of Southern California was a region shunned and feared by all men.
- But today, thanks to the skill of engineers and the faith of American farmers, more than 500,000 acres of this desert area have been transformed into a great garden of unexcelled productivity.
- Millions of dollars worth of alfalfa, vegetables, grain, livestock, flax, beets and dairy products are now being produced here annually—bringing wealth to thousands of farmers and stock-raisers.
- The same water that is irrigating the fields is also supplying low-cost electricity to the homes and shops and factories of the 60,000 people who dwell in Imperial valley. Since the Imperial Irrigation District began distributing and selling electrical energy six years ago, the power lines have been extended to the most remote corners of this desert empire.
- Abundant power supply has made possible the air-cooling of homes and workshops so that today Imperial valley people live and work in comfortable temperatures even during the months of extreme heat.
- Imperial Irrigation District is a cooperatively owned and operated institution which operates entirely for the benefit of the consumers. In Imperial valley you can have a "home in the West" and enjoy the security and independence of an agricultural community plus all the comforts brought by low-cost electricity.



Use Your Own Power—Make it Pay for the All American Canal

ANSWERS TO TRUE OR FALSE

Questions are on page 8.

- 1—False. Sandstone is a sedimentary rock.
- 2—False. Horses were first brought to America by Europeans.
- 3—True. 4—True. 5—True.
- 6—False. University of Arizona is at Tucson.
- 7—False. The Pimas and Apaches were enemies.
- 8—True.
- 9—False. Furnace Creek Inn is operated by Death Valley Hotel Co., Ltd. and has no connection with Scotty's Castle.
- 10—False. Elephant Butte dam is in New Mexico.
- 11—False. Freight was transferred to river boats at the mouth of the Colorado.
- 12—True. 13—True.
- 14—False. There is no law against use of dead ironwood on public lands.
- 15—True.
- 16—False. The original Santa Fe trail extended only from Missouri river points to Santa Fe.
- 17—True. 18—True. 19—True.
- 20—False. Walpi is one of the Hopi towns.

Who can identify these ancient ruins somewhere in New Mexico?



PRIZE CONTEST ANNOUNCEMENT

This picture was taken in New Mexico. It is evident these walls were built by human beings. But where are they? Who built them? Are they of stone or adobe? Is this an ancient city or a vast series of ceremonial chambers? Why were they abandoned?

These are some of the questions that will come to the mind of the Desert Magazine reader when he or she studies this photograph.

In order that the more important questions may be answered, Desert Magazine will offer a prize of \$5.00 for the most complete 500-word story about these ruins. Contestants should give the name and location, accessibility by highway, and as much pertinent information as can be condensed in the word limit.

Answers must reach the Desert Magazine office by October 20, and the prize-winning manuscript will be published in our December number. The contest is open to all except National Park service employees.

SPANISH

I guarantee you speak it quickly. No study, no homework. Your home by appointment if within 50 miles of Los Angeles.

de Miramon

108 W. 6th VA. 8682 Los Angeles

Weather

FROM PHOENIX BUREAU

Temperatures—		Degrees
Mean for month	.....	87.1
Normal for August	.....	88.5
High on August 19-20	.....	106.0
Low on August 27-28	.....	69.0
Rain—		Inches
Total for month	.....	0.44
Normal for August	.....	0.95
Weather—		
Days clear	.....	17
Days partly cloudy	.....	12
Days cloudy	.....	2

G. K. GREENING, Meteorologist

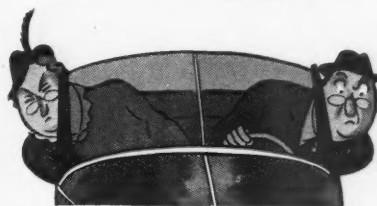
FROM YUMA BUREAU

Temperatures—		Degrees
Mean for month	.....	87.2
Normal for August	.....	90.4
High on August 19	.....	109.0
Low on August 30	.....	66.0
Rain—		Inches
Total for month	.....	2.16
71-year-average for August	.....	0.50
Weather—		
Days clear	.....	24
Days partly cloudy	.....	2
Days cloudy	.....	5
Sunshine 88 percent (365 hours out of possible 414).		

Colorado river—Discharge for August at Grand Canyon was 866,000 acre feet. Release from Boulder dam was 1,434,000 acre feet. Estimated storage behind dam August 31, 30,430,000 acre feet, a loss of 570,000 acre feet since July 31.

JAMES H. GORDON, Meteorologist

Many an Honest Motor Beats...



Way out west there lived a Man and his Wife.

They had a very fine automobile. The automobile, in turn, had a motor which was both powerful and sound proof.

But one day the couple were out riding when a little stranger came to blighten their lives. What happened was, the motor broke its long silence.

"Something is going on right under our very hood," cried the Man, peering anxiously around the windshield.

"So I hear," replied the Wife, doing likewise around the same.

Fearing that the formerly faithful motor might knock itself out, the Man drove loudly into a Shell Dealer's Service Station. "Our motor has developed some good sound value," he said.

"Maybe the motor is not to blame," said the Dealer knowingly.

"The thing seems to be suffering metal anguish," insisted the Man. "It has played me false."

"Ah, but many an honest motor beats beneath a shiny hood," said the Dealer, coining an old phrase.

Whereupon the Dealer explained that sometimes a bit of carbon in the cylinders increases a motor's compression with audible results.

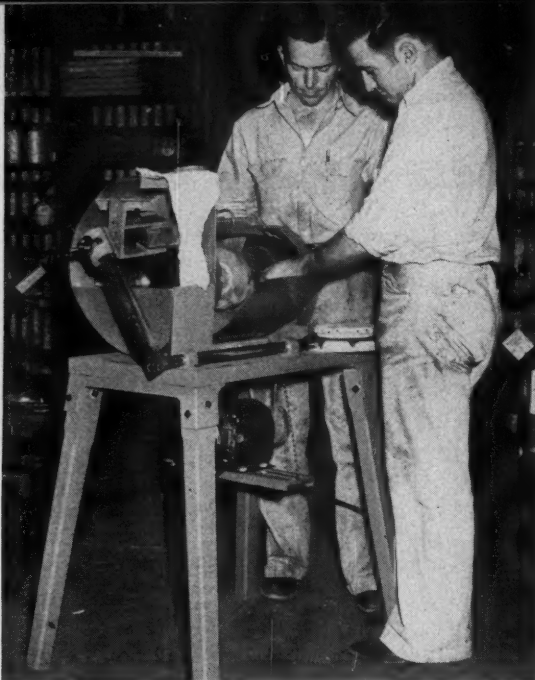
"What you need is Shell Premium. It compensates for carbon-created higher compression."

Willing to do anything to restore peace and quiet, the Man bought Shell Premium—and sure enough, they were soon sailing along on or about the highways without so much as a pop out of their faithful motor.

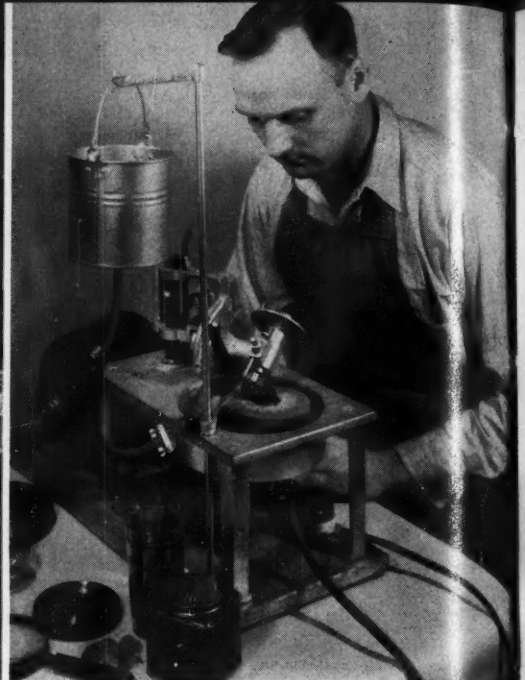
— By BUD LANDIS



F. H. Crawford of Arcadia, California, offers the lapidarist a complete combination machine which may be used either as a mud saw or diamond saw. Handles materials up to 5x7 inches, makes cabochons, spheres, level lap flat stones and grinds, sands and polishes all shapes. Precision ball bearings, porcelain lined castings.



The RX lapidary machine made and sold by W. A. Felker at Torrance, California, is a "complete lapidary shop" occupying 24x30-inch floor space and weighing 135 pounds. Mr. Felker is a practical machinist who has developed this equipment out of long experience in the field of gem collecting and cutting.



The Johns Gem Cutter is a simple, accurate, sturdy machine for the finishing of gem stones of all kinds. Every item necessary for beginners to start work is furnished with machine. A precision faceting attachment may be purchased by those who desire it. The Johns company recently moved from St. Louis to San Antonio, Tex.

Anyone Can Cut Gem Stones

By WILLIAM T. BAXTER

Author: Jewelry, Gem Cutting & Metalcraft

MINERALS and rocks are beautiful in their natural state but their beauty is enhanced and the value increased when one side is ground smooth and polished to a glossy surface, or better yet when a piece is ground and polished into a beautiful cabochon.

The cutting and polishing of a cabochon is quite an easy task and does not require skill. As a high school manual arts instructor, during the past six years I have taught hundreds of boys and girls how to cut and polish cabochons. It is rare indeed that the beginner ruins the first stone.

Most of the minerals suitable for cabochons are seven or more in hardness, as measured on Moh's scale, and therefore require a grinding wheel of hard grit. Silicon carbide wheels, which are made artificially, and sold under several trade names, are used for the grinding.

All of the work can be done upon a single grinding or polishing arbor by changing of equipment. It is better if the arbor has a step-pulley so different speeds may be obtained, for the grinding is done best if the wheel has a speed of at least 5,000 surface feet per minute, which is around 1,750 R.P.M. for a 10-inch wheel. Other operations are done at a slower speed.

Mount a No. 100 grit silicon carbide wheel on the arbor, which is shielded, and allow water to run on the wheel to keep the wheel clean and the stone cool, and



The Covington multi-speed horizontal lap machine made at Redlands, California, is designed for both amateurs and professionals and with attachments will finish gems, spheres, bookends and cabinet specimens up to large sizes. Variable-speed pulleys on rubber-mounted motor provide the proper speed for each operation. Attachments are easily and quickly removable.

grind the stone smooth if a specimen is wanted, or grind the small piece of material to shape if a cabochon is desired.

The wheel can run in a box-like shield which holds water, the wheel dipping down into the water. This is just as satisfactory as the pressure water system.

After grinding to shape on the No. 100 grit wheel, smooth upon a No. 220 grit wheel.

Small imperfections left in the grinding are removed upon a resilient sander which can be made by most any craftsman. Secure

It is a fascinating pastime—the collecting of semi-precious gem stones, but the collector does not know the real fascination of his hobby until he acquires saw and polishing equipment to reveal the hidden beauty of the minerals he brings in from the desert hills.

Desert Magazine this month presents a photographic parade with brief description of the most popular gem cutting and polishing equipment sold by western makers and dealers. While there is a considerable variation in the price range of lapidary equipment — purchasers will find that in buying machinery to cut and polish stones, as in every other field of merchandise, if they deal with a responsible concern they will get what they pay for. You cannot buy a Cadillac for the price of a Chevrolet, although both are good value for the money. The same is true in buying lapidary equipment.

a nut that fits the arbor. Rivet this, using at least three rivets, to a circular piece of sheet metal that is about 1/16-inch thick, and about three inches in diameter. Mount this, with wood screws, to an inch thick, 10-inch diameter piece of wood and with a chisel true the disc.

Secure a rubber kneeling pad and glue this to the disc. Cut to shape and cover with heavy cloth, preferably canvas. Cover with glue and dust on No. 220 grit silicon carbide grit. After the glue dries the

Vreco diamond sawing outfit is made at Portland, Oregon, but is distributed by dealers in many parts of the country. Cuts slabs to 5 inches. Self-lubricating, Chrysler 'Oilite' bronze bearing. Has splash curtain and sliding carriage to hold material 5 inches in diameter and 7 3/4 inches long. Adjustable cross-feed permits cutting thick or thin slices.

sander is ready to use. No water is used in the sanding operations.

Using dopping cement, fasten the rough-ground stone to a short piece of dowel rod, or other stick, and as the sanding disc revolves, remove the scratches left in the stone during the grinding. Keep the stone in motion at all times. A well worn sanding disc will give agate and many of the other stones a near-shine.

After removing all the scratches polish the cabochon on a felt or muslin wheel mounted on the arbor, using tin oxide or other polishing agent as an abrasive. This is mixed with water and applied with a brush. A small polishing wheel can be

The Hillquist lapidary unit, produced at Seattle, Washington, includes all accessories necessary to saw, lap, grind and polish specimens up to 4x6 inches. Attachment may also be secured for sphere and facet cutting. Photo shows Mr. Hillquist in his lapidary corner cutting a Howlite sphere with his No. 3 Compact unit—surrounded by his collection and accessories.

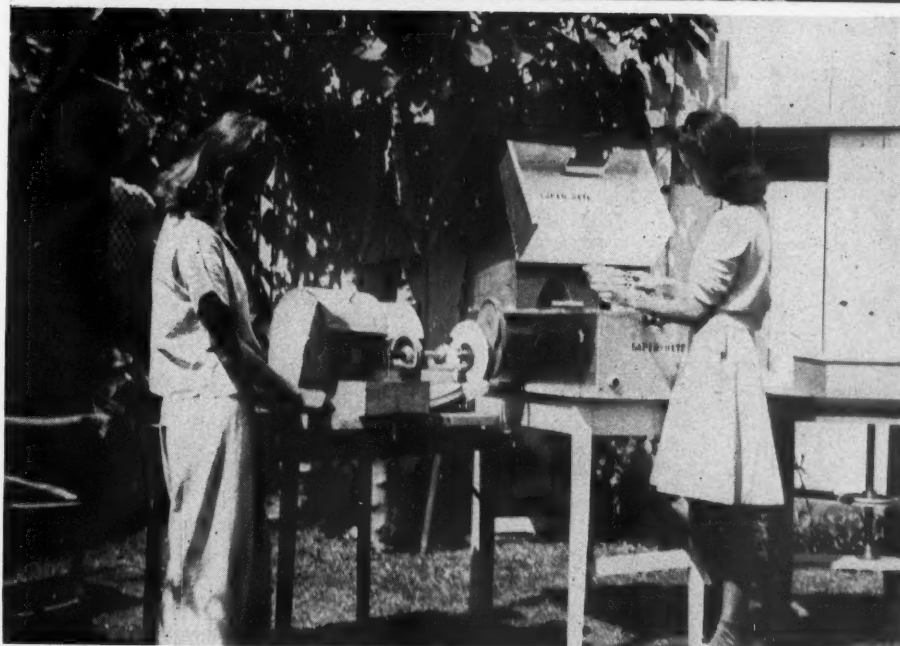
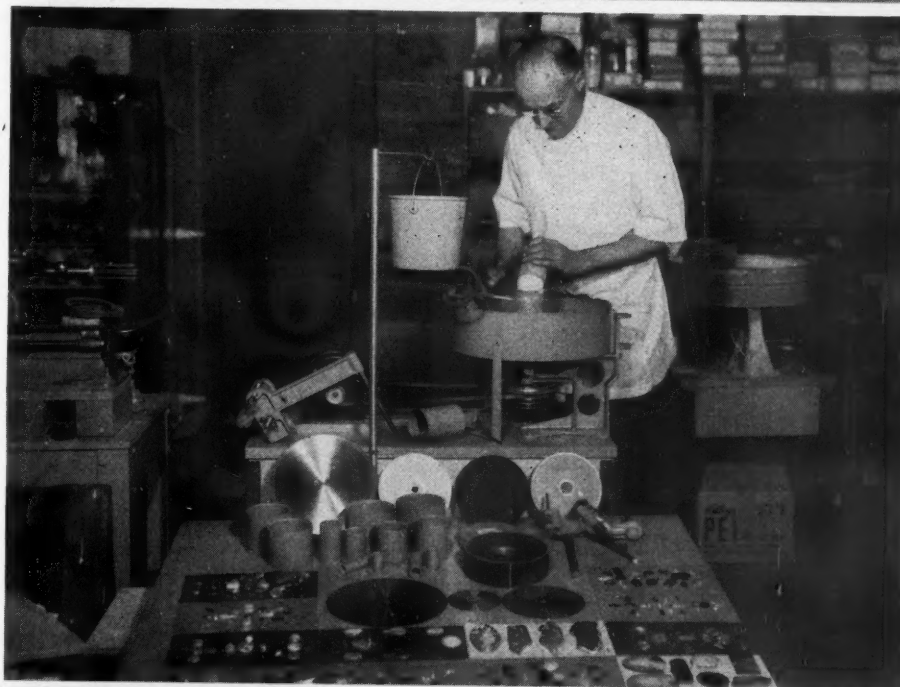
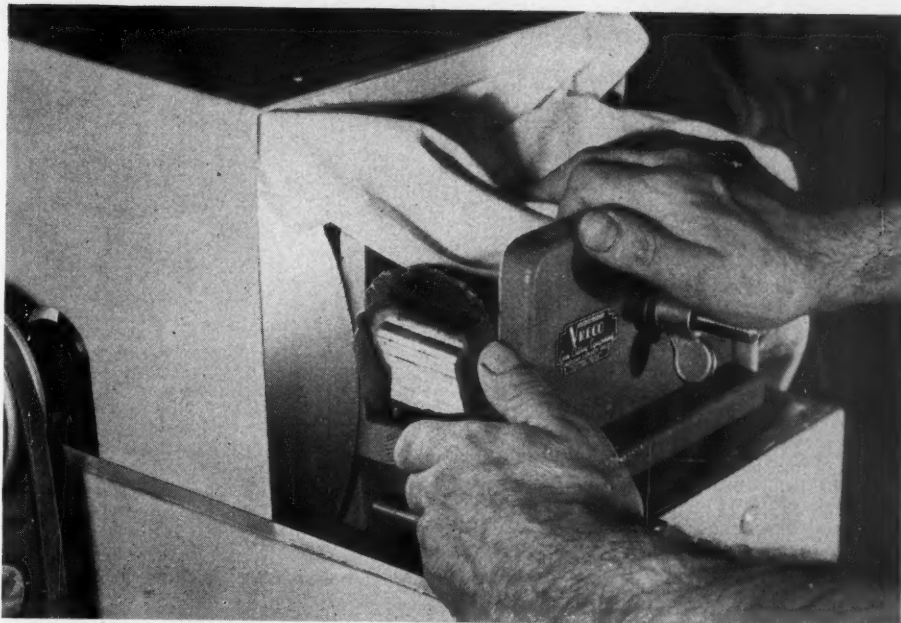
made from pieces of an old felt hat, the pieces being sewed together, or the felt can be glued to a wood disc. Care should be exercised to keep from contaminating the polishing agent with the silicon carbide grit.

Polishing and sanding are done at a slower speed than the grinding.

In the absence of electricity, power can be supplied with a small gasoline engine such as used on some washing machines.

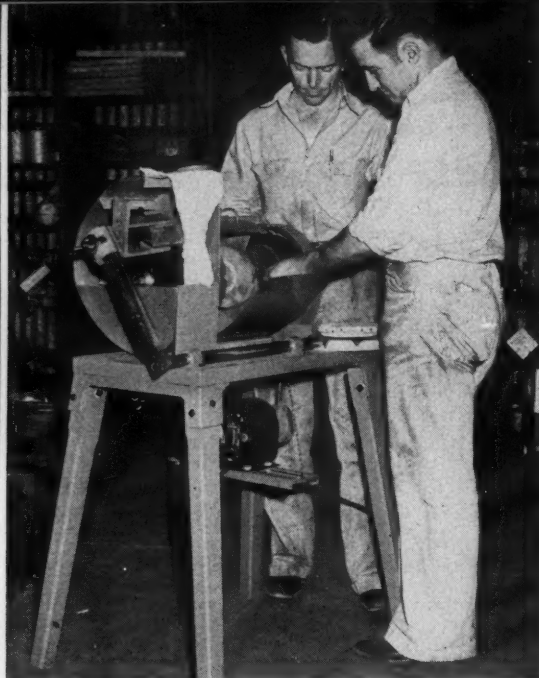
If the piece of material is too large it can be sawed into slabs. This can be done by using a metal disc running in a mixture of

J. Roy Gardner's Lapid-Rite set, made at Los Angeles, California, by Mr. Gardner himself, has 12-inch saw, 14-inch lap and includes complete polishing set. Saw shown in picture is slabbing type with side motion making it possible to cut thick or thin. Polishing equipment includes 8-inch carborundum wheel, two 8-inch sanders, and other equipment for cabochon cutting.





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It is a fascinating pastime—the collecting of semi-precious gem stones, but the collector does not know the real fascination of his hobby until he acquires saw and polishing equipment to reveal the hidden beauty of the minerals he brings in from the desert hills.

Desert Magazine this month presents a photographic parade with brief description of the most popular gem cutting and polishing equipment sold by western makers and dealers. While there is a considerable variation in the price range of lapidary equipment — purchasers will find that in buying machinery to cut and polish stones, as in every other field of merchandise, if they deal with a responsible concern they will get what they pay for. You cannot buy a Cadillac for the price of a Chevrolet, although both are good value for the money. The same is true in buying lapidary equipment.

a nut that fits the arbor. Rivet this, using at least three rivets, to a circular piece of sheet metal that is about 1/16-inch thick, and about three inches in diameter. Mount this, with wood screws, to an inch thick, 10-inch diameter piece of wood and with a chisel true the disc.

Secure a rubber kneeling pad and glue this to the disc. Cut to shape and cover with heavy cloth, preferably canvas. Cover with glue and dust on No. 220 grit silicon carbide grit. After the glue dries the

Vreco diamond sawing outfit is made at Portland, Oregon, but is distributed by dealers in many parts of the country. Cuts slabs to 5 inches. Self-lubricating, Chrysler 'Oilite' bronze bearing. Has splash curtain and sliding carriage to hold material 5 inches in diameter and 7 3/4 inches long. Adjustable cross-feed permits cutting thick or thin slices.

sander is ready to use. No water is used in the sanding operations.

Using dopping cement, fasten the rough-ground stone to a short piece of dowel rod, or other stick, and as the sanding disc revolves, remove the scratches left in the stone during the grinding. Keep the stone in motion at all times. A well worn sanding disc will give agate and many of the other stones a near-shine.

After removing all the scratches polish the cabochon on a felt or muslin wheel mounted on the arbor, using tin oxide or other polishing agent as an abrasive. This is mixed with water and applied with a brush. A small polishing wheel can be

The Hillquist lapidary unit, produced at Seattle, Washington, includes all accessories necessary to saw, lap, grind and polish specimens up to 4x6 inches. Attachment may also be secured for sphere and facet cutting. Photo shows Mr. Hillquist in his lapidary corner cutting a Howlite sphere with his No. 3 Compact unit—surrounded by his collection and accessories.

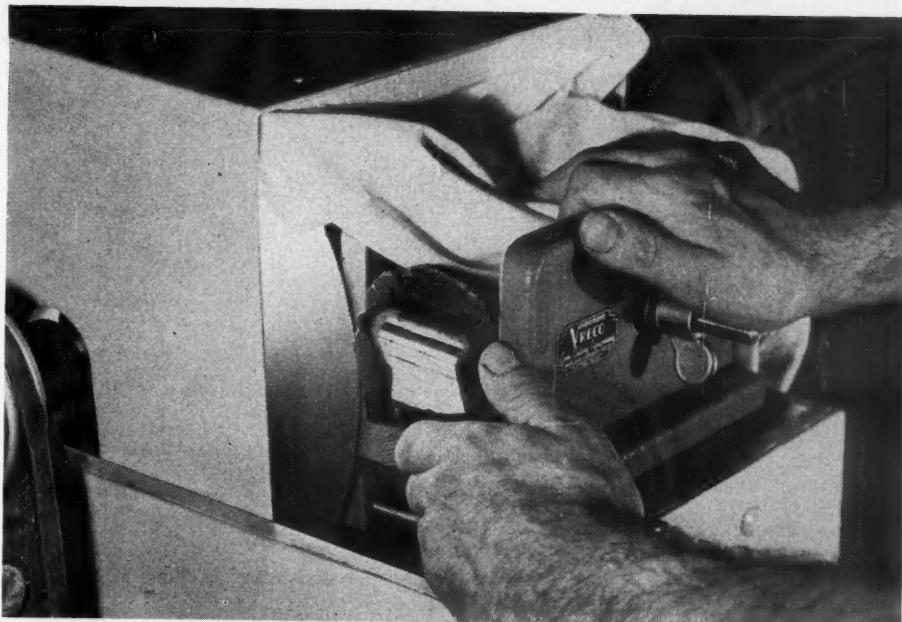
made from pieces of an old felt hat, the pieces being sewed together, or the felt can be glued to a wood disc. Care should be exercised to keep from contaminating the polishing agent with the silicon carbide grit.

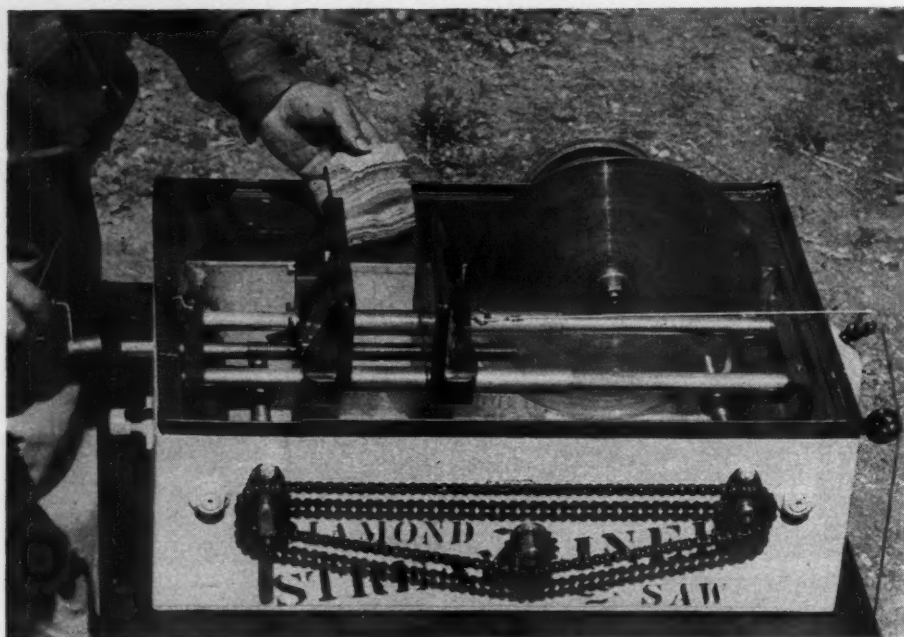
Polishing and sanding are done at a slower speed than the grinding.

In the absence of electricity, power can be supplied with a small gasoline engine such as used on some washing machines.

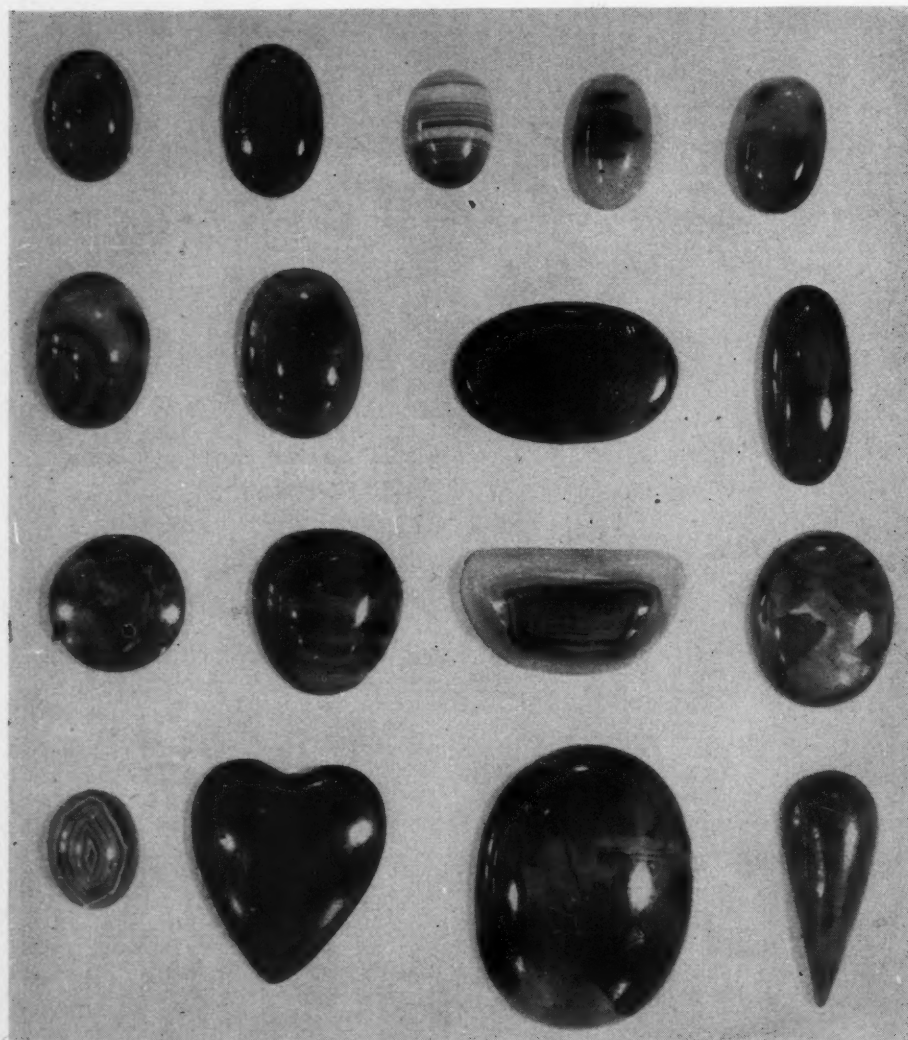
If the piece of material is too large it can be sawed into slabs. This can be done by using a metal disc running in a mixture of

J. Roy Gardner's Lapid-Rite set, made at Los Angeles, California, by Mr. Gardner himself, has 12-inch saw, 14-inch lap and includes complete polishing set. Saw shown in picture is slabbing type with side motion making it possible to cut thick or thin. Polishing equipment includes 8-inch carborundum wheel, two 8-inch sanders, and other equipment for cabochon cutting.





The Eyles diamond saw unit, made at Hayward, California, is built to carry a 12-inch blade, giving sawing capacity to 5x7½ inches. Will slice with precision material from ⅛ to 3 inches. Sawing is automatic by means of gravity pull. With proper handling blade will cut around 2,000 square inches. Machine distributed by a number of lapidary dealers.



Collection of cabochons cut by students of W. T. Baxter, author of the accompanying article, at the Woodrow Wilson high school in Washington, D. C.; where he is an instructor.

silicon carbide and water, to which a small amount of clay flour is added. A mechanical clamp can be used to hold the specimen, or for small pieces, the disc can run through a slotted board and the specimen held on the board by hand.

Diamond saws, a metal disc charged with diamond grit, make the fastest cutting saws, but in this case best results are obtained by using a mechanical arm to hold the specimen and feed it against the revolving blade. The diamond blade runs in a mixture of lubricating oil and kerosene to keep the blade free from dust and grit.

If using silicon carbide grit to saw, be sure to protect the bearings of your arbor.

Due to the widespread popularity of gem cutting and polishing, many manufacturers are now producing equipment that will meet all the needs of the collector at comparatively low cost. Some concerns build only sawing equipment. Others specialize in grinding and polishing tools. Some of the makers are selling combination units which complete all operations from a single shaft. While very simple equipment will meet the immediate needs of the beginner, as the student progresses he will feel the desire of more adequate tools for his operations.

War conditions are making it more and more difficult for manufacturers to obtain the materials for lapidary equipment and those who plan to install their own lapidaries will realize that deliveries will be slower as the demand for defense materials increases.



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In the advertisement of Crawford's New Special Sawing, Lapping, Polishing and Sphere Cutting Machine, which appeared in the September issue of Desert Magazine, the following was omitted from the copy . . .

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Gems and Minerals

This department of the Desert Magazine is reserved as a clearing house for gem and mineral collectors and their societies. Members of the "rock-hound" fraternity are invited to send in news of their field trips, exhibits, rare finds, or other information which will be of interest to collectors.

ARTHUR L. EATON, Editor

Barstow Plans Huge Display Mojave Minerals . . .

While a majority of the exhibits at the Mojave Desert mineral show at Barstow October 11-12 will come from within a radius of 70 miles of Barstow, there will be one division open to all the West, according to Chairman Walter Lauterbach of the committee in charge.

The success of last year's show which brought 3,000 visitors to the Mojave desert town, has encouraged the Barstow collectors to increase the scope of their exhibits this year and it is expected that almost the entire ground floor of the attractive Beacon Tavern will be devoted to the displays.

Entries in the main department of the show will come from within a 70-mile radius of Barstow and will consist of minerals, either rough or cut and polished, found in this area. Private exhibits are each limited to a 2x6 table.

Class No. 1 will include material from Randsburg, Searles lake and Trona districts and other north and west points within 70 miles of Barstow.

Class No. 2 will include exhibits from Bicycle lake, Calico, and Baker districts and other points within 70 miles north and east of Barstow.

Class No. 3 will include material from Latic, Ludlow, Victorville and Chuckawalla and points within 70 miles east, west and south of Barstow.

Class No. 4 will include special material from all districts in the foregoing.

Class No. 5 will include material from all districts with entries limited to exhibitors under 18 years as of October 1, 1941.

The foregoing classes will be judged for attractiveness 25 percent, rarity 25 percent, quality 25 percent and quantity 25 percent.

Class No. 6 is for any interesting or instructive desert material from the entire Mojave desert area.

Class No. 7 throws the show wide open to all the West. Correspondence regarding these exhibits should be addressed to the show committee at Beacon Tavern, Barstow.

Field trips of general interest are being care-

fully worked out for each day of the show. Interesting speakers are being lined up in addition to Ernest W. Chapman, past-president of the California Federation of Mineralogical societies and author of works on lapidary.

GARAVENTA HEADS RENO ORGANIZATION

Helen Griffing, corresponding secretary of recently organized Reno rock club, sends in an interesting report of the activities of that group. They are fortunate in their membership, which includes Frank Garaventa, recognized authority on Nevada gems and minerals; also an instructor in cutting and polishing, and a silversmith.

Six members have acquired lap equipment, and the club owns one machine. Field trips in the Reno district are both profitable and instructive. Club members are able to secure agates, pudding stone, bloodstone, "Nevada diamonds," wonderstone, rhodonite, petrified wood and many other specimens locally. No trips are made, however, during the hot season.

The club has classes in stone polishing and cutting, and in silver work. A class in fluor-escence is being organized.

Current officers are: Frank Garaventa, president; Bob White, vice-president; A. J. Connelly, secretary-treasurer; Helen Griffing, corresponding secretary.

The facilities of the United States mints at San Francisco, Denver and Philadelphia are being enlarged over one third. The mints are at present working three shifts seven days a week. The increase is to meet the demand for more coins for use in vending machines, pin ball games, etc. In 1940, 1,209,578,982 coins were minted in the three establishments. (Note: Rockhounds don't have spare time in which to waste money on pin ball games; they can find better use for their stray nickles in securing new specimens.)

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- 1 lb. No. 1200 Final Lapping Compound.
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- 2 pounds 80 grit Carborundum.
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Source of Bauxite . . .

Bauxite, chief ore of aluminum, is largely produced in Dutch Guiana. At present, it is shipped by steamer to Mobile, Alabama; thence by rail to Vancouver, Washington, where it is converted into aluminum pig and shipped to Los Angeles by rail. The office of production management very reasonably suggests that an aluminum reduction plant be built near Los Angeles harbor, and that the bauxite be shipped directly from the Dutch mines, via Panama, thus saving considerable haulage.

Another long haul could be avoided by locating a tin smelter near the harbor to handle Bolivian, Chilean and East Indian tin ore. The present smelter is at Texas City, near Galveston.

Those Dry Lake Specimens . . .

Reno, Nevada

Dear Editor:

Enjoy the many fine articles and excellent illustrations of the Desert Magazine. I note every reference to minerals as that is my particular hobby. The mineral howlite appears capitalized throughout an article in the September issue. Mineral names do not require capitalization in any manner differing from the rules applying to other common nouns. Nor does the word "zeolite" on page 30 in the August number. Another feature, in addition to the many interesting observations on Great Salt Lake is that the sodium sulphate, in very cold weather, reaches saturation and precipitates out of the waters and is then thrown ashore by the waves. As the water again becomes warm this mineral again goes into solution.

In the August issue an article entitled "Odd Rocks from a Desert Dry Lake" is in error in referring to a mineral as a rock and furthermore the mineral is not particularly odd (in the sense of peculiar, queer, or singular) as it closely resembles several other mineral species. This fact had led to its misidentification. Mrs. Anita Scott kindly furnished me with some of the minerals from the above locality. These closely resembled the illustrations accompanying the article. These gave gelatinous silica on solution in acid and also contain much alumina. Both of these characteristics set it apart from pectolite. A complete chemical analysis shows it to be scolecite, one of the zeolites. More care should be used in the identification of minerals, particularly those described in a publication as the error is then multiplied through the distribution of the magazine and again by others who collect from the locality.

VINCENT P. GIANELLA



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AMONG THE ROCK HUNTERS

Dr. Warren Fox, one of the organizers and first president of the Imperial Valley, California, gem and mineral society, resigned his position as Imperial county health officer in August and accepted a similar position in Riverside county.

E. C. Perkins of Hurley, New Mexico, planned during the latter part of August to climb Cook's peak for the double purpose of taking infra-red photographs and collecting minerals. Lead, zinc and fossil specimens are found near the peak.

Opening its fall season, the East Bay mineral society at Oakland met September 4 when members reported on vacation experiences and exhibited specimens collected during the summer. Dr. George B. Lauderback, professor of geology at the University of California was scheduled to speak at the Sept. 18 meeting on the geology of Berkeley hills. September 21 was announced as an all-day picnic and auction at the Municipal Lake park in Lodi, with societies from Chico, Sacramento, Stockton, Modesto, San Jose and San Francisco participating. Plans are being made for a field trip October 4 and 5 when the members will have an opportunity to pan gold.

Santa Monica gemological society enjoyed an address August seventh by Sadie Sherman who described the highlights of three trips into the Southwest where she collected Indian material, rock specimens and fossils. Miss Sherman used pictures to illustrate her talk. C. D. Heaton lectured on quartz family minerals to the study class, exhibiting an amazing variety of crystals and gem stones belonging to that group. Mr. and Mrs. Vern Cadieux supplemented the exhibit by showing 50 prize winning specimens. Santa Monica society frequently presents to those attending meetings specimens gathered on field trips. Perlite and jasper were given away at the August session.

1942 CONVENTION

Announcement has been made by the California federation of mineral societies that the 1942 convention is to be held June 13-14 at Pasadena, California. This is the seventh annual convention and the meeting place is Huntington hotel.

The U. S. naval air force will also have its rockhounds. Avery Eaton, of Imperial Valley gem and mineral society, joined the air force in August. He already has his wings as a commercial pilot.

Imperial Valley gem and mineral society has instituted a new method of nominating officers. Each member is mailed a printed membership list and is asked to check nominees for the elective offices and return the list to the secretary. The two names receiving the most votes for each office are placed on the final ballot. Election is held the first Tuesday in October.

"Brickite" is another specimen often found on rock hunting expeditions.

Sequoia mineral society reports most interesting and instructive summer trips: one in August to Crystal cave, Sequoia national park; another in June to Chowchilla river for chascolites; and a July 4 holiday trip to Lake Tahoe and Nevada points. Specimens of ores, rhyolite, petrified wood, and opalite were found.

Lava "currants," which roughly correspond to small limestone stalagmites, except that they are usually formed of basaltic lava (which has been melted by nature and subsequently formed into tiny stone drops) instead of calcium carbonate, are offered to gullible tourists in the Pacific Northwest as "petrified fossil excreta."

Mount Laguna, San Diego county, California, long regarded as barren of all types of mineral specimens, has at last begun to justify itself in that line. Recently, a small deposit of scheelite, a valuable ore of tungsten, was discovered and opened on the mountain. This deposit has furnished both tetragonal and tabular crystals of the mineral, as well as several good groups of crystals. Among other mineral specimens found on the mountain recently are hematite and limonite iron, mica schist stained to beautiful colors by the iron, and considerable evidence of manganese and garnet.

Ralph Bushnell, well known prospector of San Diego county, California, displays some of the fine specimens of crystals and ore gathered by him during his many years of experience in the county. His specimens of kunzite, tourmaline, gold and iron are outstanding, but his pride in his beryl crystals and cut beryl gems is fully justified. The largest cut stone, nearly as large as a pigeon egg, is a gem of high quality.

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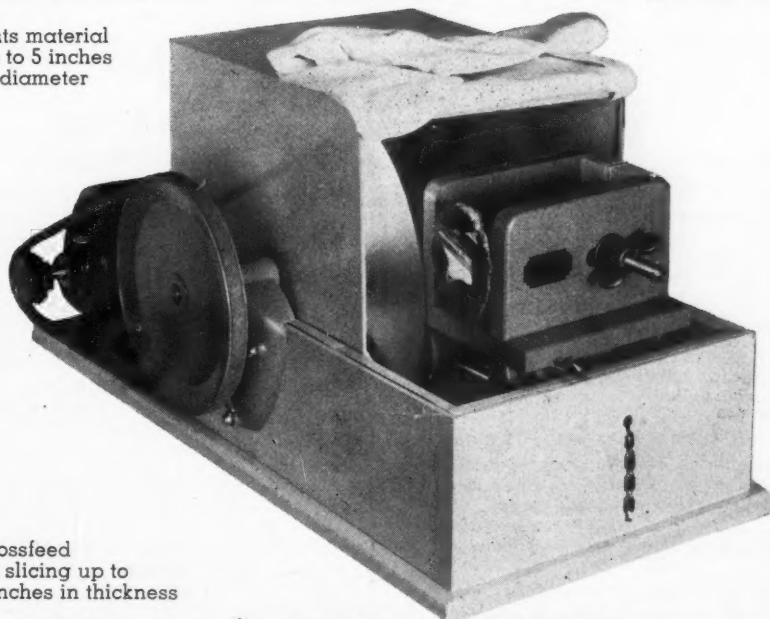
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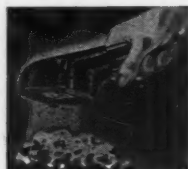
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VANADINITE — Vanadate and chloride of lead, one of the most strikingly beautiful of all minerals. It forms as orange to aurora red prisms and pyramids, sometimes almost ruby red incrustations on other rocks. It is soft, hardness 3, and very brittle, but quite heavy, specific gravity 6.8. The brilliant crystals, frequently incrustated on stone, are easily recognized. Commonly found in Arizona and New Mexico.

DESCLOIZITE — Vanadate of lead and zinc, ranges in color from red or yellow to brown or black. Its crystals are double pyramids, but are usually found in tiny drusy forms on other rocks. Their hardness, specific gravity and brittleness are almost the same as vanadinite, but the color is enough distinction. Arizona and New Mexico are common American localities, although most of it is produced in South Africa.

Cogitations . . .

Of a Rockhound

By LOUISE EATON

• Rockhounds loves to take field trips. If they can't get away every so often they feels sorta hurt 'n discriminated against. Every summer or other vacation they plans trips to distant points in other states so's they can add to their specimens. But sometimes circumstances is such that they can't take the trip. Then they're always amazed at the good specimens previously overlooked that they can find almost in their own dooryards.

• Rockhounds is grateful to scientists etc. folks who in the past pounded up rocks an' found out what they're made outta, so that now rockhounds can tell just by lookin' at their rocks when they're chrysocolla or turquoise or. sumthin' else. An' also classified em accordin' to hardness, so's its easy to tell quartz frum topaz. Specific gravity's sumthin' else yet again. An' not match indulged in by amachures. But most anyone c'n scratch a rock specimen an' put it into its proper class by the hardness test.

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STOP at the Valley Art Shoppe, 21108 Devonshire Blvd., Chatsworth, California. Rough and polished slabs. Cutting 5c square inch. Polishing 10c square inch. Minimum charge 25c. Open Saturday and Sunday. Visitors always welcome.

I WILL BUY . . . SPOT CASH! . . .

GOLD SPECIMENS—(Must contain Visible Gold.) Also all forms of crystals, especially crystal clusters; anything colorful, sparkling or showy. **WANT Gem-Stone** rough or polished. Wood, Jasper & Agate in slabs only (polished or unpolished). I Quote No Prices. Set your own & send samples. Samples paid for or returned. "ROCKY" MOORE—201 Broadway—Arcade Bldg. 542 So. Broadway, Los Angeles, Calif.

Writers of the Desert . . .

The lure of a lost gold mine is scarcely less compelling than the unusual experience of finding one—even when someone else already has possession of the claims. And that explains the story of the rediscovery of the Lost Dutch Oven mine which REXFORD BELLAMY has written for this number of Desert Magazine.

Bellamy was on the desert seeking material for a series of articles on strategic minerals when he came across a clue that led him to the mine which he is convinced is the legendary Dutch Oven. He spent much time checking the original story against the landmarks and other physical aspects of the Gillespie property now being worked in the Old Woman mountains of Southern California, and satisfied himself beyond doubt that the two were the same.

Before writing the story, however, he came to El Centro with his photographs and other evidence and discussed his findings with the staff of the Desert Magazine. As a result of this conference came the manuscript presented this month.

Early in life Rexford Bellamy aspired to be an artist. He worked as a shipping clerk by day in order to attend the Chicago Art Institute at night. Commercial art jobs were scarce, and he took a job as salesman for an illustrating and engraving concern and worked up through various executive positions to become advertising manager of an important organization.

At one period he left the advertising field for three years to go into the theater business. One son, Ralph, whose name is well known to the movie world, played lead part in the Bellamy dramatic company.

Today the elder Bellamy is doing the things he has looked forward to for many years, digging up interesting information and converting it into feature stories for various publications. Besides Ralph, there is another son, Dick, who is head of one of the departments at the Douglas aircraft plant.

In 1937 FRANK BENE came to Arizona as a convalescent, and it was during his hours in the yard of his Phoenix home that he became interested in hummingbirds. For the past three years they have been his main interest—and the story of the desert's winged visitors in this number of Desert Magazine is written largely from his own experience with the birds.

Before his illness brought him West, Bené was county supervisor of literacy and

citizenship in Pennsylvania. He is 36, a graduate of Lehigh university and is married. He is a member of the Cooper Ornithological society and has contributed to its publication Condor. He is also a member of the American Association of Adult Education and the Wilson Ornithological club.

"So far as I know, the picture of the Rivoli hummingbird sent to Desert, is the first to be published of this species," he writes. Bené is now working on a book-length manuscript on North American hummingbirds.

. . .

G. DALE HAMILTON, who wrote about the old Nevada ghost towns of Treasure City and Hamilton for this Desert Magazine grew up on a grubby hillside in Arkansas. He worked in the sawmills of his native state, railroaded in Oklahoma and was a fruit tramp in California before he finally entered the College of the Pacific and completed his scholastic education.

For the past nine years he has had an office position in San Francisco, with writing as a hobby. He and Ernest C. Peterson have been outdoor pals for six years, hiking in the Sierras and Rockies and making frequent trips to the desert to visit the ghost mining towns.

Peterson is a research chemist for the W. P. Fuller Paint company in San Francisco. His hobby is photography and he supplies the pictures for Hamilton's free lance features. "The desert has become almost an obsession with us," says Dale, "and I hope we will have more features to submit to Desert in the future."

. . .

It was during one of his many trips into the Mojave desert that ROBERT J. SCHULZ of Los Angeles first heard the wind moaning through the rocks near Cajon pass and became acquainted with the "Chanting Rocks" which he has written about for Desert Magazine readers this month. Since his first visit to the place he has returned there many times, exploring the odd caverns and recesses in the sandstone ridge, and taking photographs.

Schulz spends his working hours as a drug clerk, but his heart is in the outdoors. He has climbed every Southern California peak over 9,000 feet in elevation, and every off day is spent either in his photographic room, or in the mountains or on the desert. His pictures and stories have appeared in Westways, Los Angeles Times and Popular Photography.

in other words

by JOHN CLINTON



Well, the Hispano-Plymouth was practically leaning against the garage wall, its headlights rakishly askew, its beautiful body caked with the white dust of the Mojave, the good salt mists of Oregon, and the balsam spots of Washington. "I'm tired, John!" said the Hispano-P!

* * *

I patted it on the radiator, scratched its headlights and went in and telephoned my favorite Union Oil Minute Man—Champ, down at Foothill and Haskel. "Come and get it, Champ," I said.

* * *

For the most certain, economical and prompt cure of *after-vacation-itis* in your pet motor vehicle is a Stop-Wear lubrication job . . . as served staunchly and exclusively by Union Oil Minute Men.

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So if your car looks thin and weak after the summer, call your neighborhood Minute Men at the Union Oil station. Just say "Stop-Wear . . . come and git it!"



BOOKS OF YESTERDAY AND TODAY

—a monthly review of the best literature of the desert Southwest, past and present.

ARMORED HORSEMEN INVADE LAND OF THE INDIAN

In *THE HABIT OF EMPIRE* Paul Horgan tells the impressive story of General Juan de Oñate's conquest and settlement of the Southwest and in particular of Don Vincente Zaldivar's storming of the Acoma stronghold.

The Southwest in their time was an unknown land, far from sources of news in the world of the late 16th century. Conquest and warfare were the "only known instruments of policy and weapons of faith." Coronado and Espejo had gone only to look and return, but for Spain, that was not enough. It was for General de Oñate to lead a colonization march for which he would "receive lands, hereditary entitlement as a marquis, and godly fame."

Over the white dunes, whose only growths were the shadows on their sides, into a land of "brown-crust earth where crawling grasses and black-rooted plants with golden branches that were sharp like daggers grew," Oñate led the little band of 130 men and their families. In shining armor and brilliant trappings they moved northward. To keep up the drooping spirits of the company, the evenings in camp were spent in impromptu theatricals, the wagons serving as the back-drop of the stage.

But all this was interrupted as the expedition rode into the shadow of the great rock of Acoma, into "a shadow as big as a storm. It was the great rock on which the Acoma Indians had built their fortified pueblo. Hundreds of naked Indians danced on the rock's rim, hurling taunts at the pitiful band of armor-laden Spaniards who thought to find toe-holds in the perpendicular stone. Other hundreds of warriors stood ready with bows and flint-tipped arrows. Beside them were delicately balanced boulders.

Here in this artistically wrought battlepiece, Paul Horgan presents a close-up of one of the most dramatic episodes of New World conquest. By his effective style, grim reality becomes well-tempered, modulated—without loss to the driving force that made this scene one of the most colorful in the ancient epic of the Southwest.

THE HABIT OF EMPIRE is not just another book of Spanish Conquest. It is an artistic presentation in story and in format. The eight lithographs by Peter Hurd sustain the mood of the story. Decorative initials designed by Willard Clark mark the opening of each of the 14 chapters. The whole is an historical gem set in the fascinating field of the Southwest's regional literature.

Harper and Brothers, New York, 114 pages, \$2.00.

—Marie Lomas

CALIFORNIA GUIDE BOOK ACCORDED FINE RECEPTION

When a book of the month club recommends a guide book, one can expect an unusually important volume. And in *CALIFORNIA, A GUIDE TO THE GOLDEN STATE*, he will find just that. This is another in the American Guide Series, product of the Federal Writers' Project, first published in 1939 by Hastings House, New York.

Every mile of the state was covered by the many research workers, from the Oregon line to the Mexican border, and the resulting mass of information has been logically arranged and amazingly compressed into a 713-page encyclopedia-guidebook.

Almost four centuries of history are con-

densed in a few chapters beginning in that remote spring of 1579 when Sir Francis Drake's Golden Hind sailed up the California coast, then left it tranquil for two centuries, to be entered again, this time by the Spanish who would convert the heathen. Finally are unfolded the Mexican and American eras ushering in the 20th century.

Chapters on the natural setting, movies, education, the arts, are followed by guides to 14 important cities and 14 tours throughout the state. A half dozen or so of these logged trips are through desert areas. There are special sections on Death Valley national monument, Sequoia, General Grant and Yosemite national parks.

General travel information, calendar of events, guide to recreation, chronology, reading list and index are supplements.

Deserving of special comment are the outstanding photographs, which are grouped in sections corresponding to the text. 14 maps, pocketmap, \$3.00.

INDIAN AGENT—FORGOTTEN MAN OF THE OLD WEST

Volumes of fact and fiction have been written about the men of the old West, the pioneers, mountain men, Indians, gunmen, marshals and financiers—all but the Indian agent. He has been the forgotten man of the pioneering period.

Flora Warren Seymour has now written a book about him—*INDIAN AGENTS OF THE OLD FRONTIER*, published by D. Appleton-Century company, 1941. It is an authentic historical record of the men, who, appointed by the government, served as go-betweens for white man and redskin.

Mrs. Seymour has given a vivid portrayal of an intensely interesting subject—from Kit Carson down to the present day Indian superintendent.

Some of the criticism-directed at the Indian agents of the early 1800s is justified. The agents of that period were on their own, loosely supervised, possessed of a big measure of authority. Frequently they took advantage of their position for personal gain at the expense of Indians they were sent to help. During a later period they were appointed largely upon recommendation of religious organizations. The moral tone rose, if the efficiency declined.

But, as in all things, there was a happy medium between these two extremes which was the plane of the average agent. Mrs. Seymour illustrates this point by applying the sage observation of an Indian interpreter upon life in general to the agents. "There are three kinds of people," said the Indian, "the good, and the bad, and those in between like you and me." So it was with the Indian agent.

But the biggest obstacle to advancement of the white-man's relations with the Indian was the government itself. The agents who really had the best interests of their charges at heart were constantly hindered in their work by the lack of understanding and eternal jealousy and bickering of the higher-ups in Washington, D. C. These men knew nothing of Indians and their problems, yet dictated the policies for the agents to follow in dealing with them. And then there was the constant fight between the army and the Indian bureau as to who was to have greater control over the savages.

Fully indexed and annotated. 402 pages, \$3.50.

—Rand Henderson

TOUGH HOMBRE—BUT HE DID HIS JOB WELL

River Bend was a tough town, the end of the trail for cattle drives from Texas, and it took a tough man to police it. Dan Mitchell was such a man. He ran the town with an iron hand, made no friends, and ignored his enemies. The townspeople thought him too self-sufficient, too self-satisfied, and too self-reliant. This view was shared by Sherry Galt, who admired his strength but hated his aloofness. Dan knew about all these things, but he knew also that his life depended on his ability to show a solid front to the men with whom he had to deal.

This is the setting for *TRAIL TOWN*, latest and best of Ernest Haycox's list of thrilling western novels. In this, as in all of Haycox's books, he goes beyond a mere recounting of incidents and portrayal of characters. He analyses the actions of his hero and heroine, gives psychological explanations for their behavior. This alone, aside from his superior story-telling, would put Haycox in a class by himself as a writer of western yarns.

Trail Town is the story of a frontier marshal and the woman he loved, Sherry Gault. Both were strong-willed, impetuous and independent of spirit. Both fought out their problems alone, because neither ever thought of going to another human for help. Not until circumstances decreed that they should find the help they needed in each other.

Published by Little, Brown and Co., 1941. 298 pages, \$2.00.

—Rand Henderson

TRANSITION TO A NEW WAY OF LIFE

A drama of conflict between two cultures is the theme of *RED CHILL*, short novel by Myrtle Andrews just published in Santa Fe and printed by the Rydal Press. In this tale of New Mexican life in the '70s and '80s the author recreates a leisurely traditional existence that is now almost gone. She shows how it came into sharp and tragic conflict with discordant elements which were to bring about the spiritual disintegration of both individuals and their culture. The new superimposed life neither noted nor cared about adapting itself to the environment or its people. It was ruthless enough and strong enough that it did not have to adjust itself—the original pattern of life merely was to be broken and its remnants gradually re-woven into the new pattern.

The author's purpose in writing *RED CHILL*, however, was not to quarrel over this conflict nor to lament over days fast vanishing. Rather it was to record that life when it was lived in its fullest most gracious period.

The story revolves about the lives of Ramón and Juanita, two young descendants of Spanish landholders, and follows them through all the crises of life. Their early married life is filled with the joy of a security given them by tradition. When their idyllic period on the rancho was interrupted by the death of their first-born, the zest for life was still there—in the land and the work which made them almost self-sufficient.

But when tragedy reentered in the guise of a new railroad and more money than they had ever seen, when it led to the turquoise and coal mines and their accompanying temptations, then the scars and wounds were to be a long time healing.

Having spent most of her life in New Mexico, Mrs. Andrews has become intimately familiar with the social organization and customs of Spanish New Mexicans. In unfolding the daily lives of her characters, she has shared this knowledge in rich measure. There is also a distinct flavor to her style—it leaves the impression it has been freshly translated from the Spanish.

Introduction by Ina Sizer Cassidy, case bound by Hazel Dreis. 175 pp.

—Lucile Harris

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By RANDALL HENDERSON

FOR my two-week vacation in August I went to the Indian country—northern Arizona and New Mexico. That region is a great plateau, much of it more than a mile high, and the temperatures are most refreshing to one whose home is on the desert lowlands.

Rains have been abundant in recent months and I have never seen that part of the desert so colorful and luxuriant. The Navajo sheep are fat, and the corn that grows in little patches of sand around the base of the Hopi mesas is green and vigorous.

The Hopi are grateful for generous rains and good crops, but they want to make sure the gods will not forget them next season. And so they went out on the plains and gathered up three-score of their little brothers, the rattlers and racers and gopher snakes, and held their annual prayer ceremony with no less fervor than usual.

I stood on the roof of one of the adobe pueblos and witnessed the ceremonial at Mishongnovi. There is no other Indian dance just like it—nor even approaching it in human interest. One of the snake dancers was a boy of not over seven. He had quite a tussle with a huge gopher snake that was longer than he, but he never faltered.

More than one of the dancers was bitten by a rattler, but they have learned the secret of immunity. I have heard many theories as to how they survive the venomous fangs. I do not know the answer. But I will say that if we Christians had as much faith in our religion as the Hopi have in theirs, most of the world's troubles would be solved.

Just at dusk, at the base of the Hopi mesa, as I was driving toward Canyon de Chelly, a rattlesnake crossed the dirt road ahead of me. I stopped my car and let it pass. I was in Hopi country. They do not want their "little brothers" killed.

* * *

I remained two days watching the inter-tribal ceremonies at Gallup, New Mexico. A fine new grandstand and other improvements have been added since I was there last. M. L. Woodard and his associates are doing a masterly job of showmanship. Dancers and entertainers were there from 30 tribes, and they seemed to get as much fun out of it as a country boy at a county fair. Hollywood has nothing on the Indians when it comes to costuming.

* * *

With Richard Van Valkenburgh of the Indian service at Window Rock I spent three days in the heart of the Navajo reservation. We followed a good dirt road high up in the Chuska mountains where the Indians take their sheep for summer grazing. Americans who are inclined to be sentimental over the lot of the "poor Indian" need not shed tears for the Navajo tribesmen who graze their stock in that area. It is a gorgeous region of piñon and mountain meadows and wildflowers, and the Indians love it—just as you and I would if we had the opportunity to live there.

* * *

In Chaco canyon I visited the ancient ruins of Pueblo Bonito, where the great sliver of sandstone known as Threatening Rock toppled over last January and crashed into the prehistoric masonry. The damage to the old Indian pueblos was not as great as I had feared. In falling, the monolith shattered to pieces and while it demolished a sector of the outside wall and did some damage to a half dozen rooms and kivas, the ruins as a whole have not suffered seriously.

The park ranger on duty told me the debris, consisting of great blocks of sandstone, some of them weighing many tons, would probably remain undisturbed. Threatening Rock belongs to the traditions of Pueblo Bonito—and even in its crumbled condition adds to the interest of this place. I am glad the park service will leave it as it is.

* * *

At various times on my trip through the reservation I stopped to watch the Navajo women weaving their rugs. I have a great respect for the artistry of those women. No two rugs are exactly alike and the pattern, some of them very intricate, exists only in the mind of the weaver. I am afraid the prestige of the white race will suffer if those Navajo women ever take up bridge. A woman who can visualize and carry in her head the detail of one of those rugs would find it mere kindergarten work to keep track of the 52 cards in an ordinary deck.

Cozy McSparron, trader at Chinle near the entrance to Canyon de Chelly, told me the market for Navajo weaving is very active, and few of the traders have surplus stocks. Prices have advanced little, however.

Fewer rugs are being made now. Many Indians are finding employment at Fort Wingate and in other national defense projects. When her man is making 50 or 60 cents an hour working for Uncle Sam why should an Indian woman work for 5 cents an hour at her loom. As I have remarked in this column before, a Navajo rug, in terms of human labor, is the biggest value in United States. I have no doubt the time will come when handmade Navajo rugs now selling for \$15 or \$20 will find buyers at \$100. Future generations of Navajo are not going to be satisfied with earnings of 40 cents a day.

* * *

The god who rules the weather was kind to the desert in August and early September. It appeared as if he had gotten his calendar mixed up and shoved October temperatures ahead a couple of months.

Anyway the nights are delightful now and I am thinking about the canyons I want to explore this fall and winter. There aren't enough weekends for all of them—this desert is too big to be encompassed in a lifetime, but I will get better acquainted with my little corner of it.

I hope I will meet many of the Desert Magazine clan along the trails this season.

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